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ABSTRACT

This is one of two volumes of papers drawn from the twenty-first annual meeting of the National Reading Conference held in 1971. Focusing on junior college and college reading programs and problems, the 40 papers are arranged into the following categories: designs for programs, special admission students, ethnically different students, adult readers, individualization programs, vocabulary instruction programs, speed reading programs, teacher training programs, and evaluation programs. (FL)

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ED176249

COLLEGE READING: problems and programs of junior and senior colleges

TWENTY-FIRST YEARBOOK OF THE NATIONAL READING CONFERENCE

VOLUME II

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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PREFACE

This book of readings was made possible because of the number of fine papers related to the operation and evaluation of reading and study skills programs at junior and senior colleges presented at the 21st annual conference of the National Reading Conference December 2, 3 and 4, 1971 at Tampa, Florida.

Also published at this same time is the 21st Yearbook which was constructed using papers related to the research and the teacher training concerns of the membership.

The results of a national survey on programs opens this book. The next to last paper is a listing of information source for study skills research. The final paper in the annual review of research on college-adult reading. Papers in the body of the book have been organized into types of programs, types of students served, and training and evaluation concerns.

The Ombudsman function of the college learning center will feel natural to most readers and might well be considered the implicit constant running through this whole book.

Happy Reading and ombudsmaning,
F. P. G.

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JILL D. SWEIGER
Northern Virginia Community college

DESIGNS AND ORGANIZATIONAL STRUCTURE OF JUNIOR AND COMMUNITY COLLEGE READING PROGRAMS ACROSS THE COUNTRY

The junior-community college is a distinct educational entity in the United States today. One general trend in their curriculum is the inclusion of remedial education, with reading programs often being a feature of that education. Although several reports have been published on reading programs at four-year or at all college levels, no report on remedial reading programs concerned with nationwide trends at solely the two-year college level has been located. This paper presents the results of a mail survey of reading programs at 823 two-year colleges listed in the American Association of Junior Colleges 1971 Directory.

A 34 item questionnaire was sent to the "Director of the Reading Clinic" at these institutions. Of the 823 sent, 378 were returned and 288 from 30 states were used in this survey. The reduction in number of usable returns resulted when 69 reported 'no reading program' and 21 were from states returning 3 or fewer from schools having reading programs. It is felt that the remaining 288 questionnaires used in this survey are geographically, politically, economically and socially representative of junior and community colleges across the nation.

RESULTS

Table 1 presents a listing of returned forms by state and the number of forms from each state used in this survey.

Table 1
Returned Forms by State

State	Number Sent	Number Returned	Percent Returned	Number Used in Survey
Alabama	20	11	55	8
Alaska	2	0	0	0
Arizona	11	6	55	5
Arkansas	6	2	33	0
California	87	49	56	49
Colorado	10	5	50	5
Connecticut	12	6	50	6
Delaware	4	2	50	0
Florida	32	16	50	13
Georgia	19	10	53	8
Hawaii	7	5	71	4
Idaho	3	1	33	0
Illinois	48	20	42	19
Indiana	3	2	67	0
Iowa	20	11	55	7
Kansas	23	9	39	9
Kentucky	19	4	21	4
Louisiana	1	0	0	0
Maine	1	1	100	0
Maryland	17	9	53	8
Massachusetts	30	10	33	6
Michigan	32	15	47	11
Minnesota	19	10	53	4
Mississippi	21	6	29	5
Missouri	22	11	50	7
Montana	3	0	0	0
Nebraska	7	5	71	4
Nevada	4	2	50	0
New Hampshire	3	3	100	0
New Jersey	19	5	26	5
New Mexico	3	2	67	0
New York	57	26	46	19
North Carolina	47	22	47	18
North Dakota	4	2	50	0
Ohio	17	10	59	8
Oklahoma	13	4	29	4
Oregon	12	3	75	0
Pennsylvania	27	10	37	8
Rhode Island	2	1	50	0
South Carolina	7	2	29	0
South Dakota	2	1	50	0
Tenessee	13	6	46	0
Texas	46	18	39	13
Utah	3	1	33	0
Vermont	4	3	75	0
Virginia	19	5	26	5
Washington	21	15	71	15
West Virginia	6	0	0	0
Wisconsin	8	7	88	7
Wyoming	7	4	57	4

Table 2 presents the questions and responses. Questions 1 through 4 were identifying information and have been deleted.

Table 2

Questions and Summed Responses

Questions	Responses: percentages (number)		
5. Does this college have an open admissions policy?	Yes	95	(272)
	No	5	(16)
6. What restrictions, if any, are placed on admissions?	High School Diploma	28	(82)
	Test Results & High School Grades	8	(24)
	Over 18 and High School Diploma	13	(38)
	Residency	2	(7)
	None Listed on Form	45	(13[illegible])
7. What test, if any, is used as an entrance exam for the college?	A Reading Test	11	(32)
	A Regional Test	10	(30)
	COOP English and/or Math	4	(11)
	American College Test	42	(130)
	School and College Ability Tests	9	(25)
	Sequential Tests of Ed. Progress	3	(8)
	Scholastic Aptitude Test	8	(24)
	Comparative Guidance & Placement Program	10	(29)
	None Listed on Form	17	(50)
	Two or More Used	13	(37)
8. Does your college have a reading program?	Yes	86	(309)
	No	14	(69)
9. Briefly describe on what basis a student is selected for admission into the course.	Placement Tests	56	(161)
	Required	18	(53)
	Elective	55	(158)
	High School Grades	10	(28)
	Referral	37	(106)
	Percent Using Two or More of Above Criteria	49	(140)
10. With what college division or department is this course affiliated?	Own division	11	(31)
	English or Humanities	65	(187)
	Student Services, Counseling	5	(13)
	Vocational-Technical	2	(5)
	Developmental Studies	11	(33)
	Psychology	3	(9)
	Other	3	(9)
11. a. How many full-time faculty members teach this course?	One	48	(138)
	Two-Three	26	(74)
	More than Three	11	(31)
b. How many part-time faculty members teach this course?	One	36	(103)
	Two or More	15	(43)
	Percent with Only Part-Time	9	(26)
12. Is there an additional course for teaching study skills?	Yes	22	(62)
	No	78	(221)
13. Are study skills taught as a part of the reading course?	Yes	82	(235)
	No	17	(48)

14. How many full-time faculty members teaching reading hold graduate degrees in:	Reading		47	(135)
	English and Reading		2	(6)
	English		38	(108)
	Majors in Other Fields		13	(40)
15. What standardized tests, if any, are administered to the student when he first enters the course?	Diagnostic Reading Test		22	(64)
	Nelson-Denny		46	(132)
	McGraw Hill Basic Reading Test		4	(11)
	Iowa Silent Reading Test		4	(12)
	English Coop.		4	(11)
	Davis Reading Test		8	(23)
	SRA Reading Record		14	(39)
	EDL Word Clues Test		2	(5)
	California Reading Test		8	(24)
	Other		19	(56)
	None Listed on Form		8	(23)
	Percent Using Two or More		33	(95)
16. Are these tests administered again at the end of the course?	Yes		82	(237)
	No		18	(51)
17. How many days and hours per week does this course meet?	Days	Hours		
	Variable	Variable	9	(25)
	5	5	14	(41)
	4	4	6	(16)
	3	3	41	(119)
	2	2	16	(45)
	Other	Other	9	(25)
	Not Listed on Form		5	(16)
18. What calendar system does your college follow?	Quarter		29	(83)
	Semester		65	(188)
	Tri-Semester		1	(2)
	Not Listed on Form		5	(15)
19. What is the maximum and minimum class size for the course?	Maximum:	More than 25	25	(72)
		20 - 25	50	(149)
		15 - 19	16	(45)
		Less than 15	7	(19)
	Minimum:	No minimum	11	(31)
		16 - 20	9	(27)
		10 - 15	43	(124)
		Less than 10	32	(93)
20. How many credits do students receive for this course?	None received		18	(51)
	1		12	(35)
	2		21	(60)
	3		37	(105)
	Credit received but not counted towards graduation		14	(39)
	Variable credits		7	(19)
	Different credit for different courses (incl. above)		9	(27)
21. Is this course elective?	Yes		69	(198)
	No		18	(52)
	For Some		11	(32)
	Depends on course (where school offers several)		2	(5)
22. What grade designations are used for this course?	A-D and W		11	(31)
	A-F		52	(149)
	S,R,U (R=ReEnroll)		6	(17)
	P/F; C/NC; S/U (3 variations)		19	(55)
	ABC, W, Inc.		8	(22)

	P or nothing	1	(3)
	ABC, NC, I	2	(5)
	None Listed on Form	5	(14)
	Choice given to student incl.above)	3	(10)
	Different types for different courses (incl. above)	6	(16)
23. Is this same type of grading designation used by the rest of the college?	Yes	66	(189)
	No	34	(98)
24. How long has this course been in existence?	Over 10 years	8	(23)
	8, 9, or 10 years	6	(18)
	5, 6, or 7 years	27	(77)
	3 or 4 years	31	(89)
	1 or 2 years	27	(79)
25. What type of 'hardware', if any, is used in this course?	None	6	(18)
	Used but type not specified	15	(41)
	Tachistoscopic devices	41	(118)
	Reading Films	69	(199)
	Pacers or Accelerators	39	(109)
	Tapes	18	(51)
	Slides and Filmstrips	5	(13)
	Overhead projectors	3	(9)
	Record players	3	(10)
	Other Miscellaneous Equipment	16	(45)
26. What books, if any, do students purchase for this course?	Books are purchased	69	(199)
	Books are not purchased	26	(74)
	None listed on form	5	(15)
Most Popular Titles	Breaking the reading barrier. D. W. Gilbert. Englewood Cliffs; Prentice-Hall, 1959.	5	(15)
	The turning point in reading. D. W. Gilbert. Englewood Cliffs; Prentice-Hall, 1959.	5	(15)
	Free to read - a guide to effective reading.H. A. Bamman, M.F. Hiyama & D.L. Prescott. San Francisco: Field Educational Publications, 1970.	4	(14)
	Word Clues, books G - M. S.E. Taylis, H. Frackenpohl, A.S. McDonald, & N. Joline, Huntington,N.Y. Educational Developmental Laboratories, 1962.	5	(13)
	Efficent reading. J.I. Brown. Boston: D.C. Heath, 1971.	4	(11)
	How to study in college. W. Pauk. Boston Houghton Mifflin, 1962.	4	(11)
	Successful reading; key to our dynamic society. Norman, M.D., & Norman, E.S., New York Hort, Rinehart & Winston.	3	(9)
27. What 'software', if any, is maintained in the classroom for students to use on a regular basis?	Software is kept in the class	82	(236)
	No software is maintained	8	(24)
	None listed on form	9	(28)
	Too much to list specifically	32	(90)
Most Popular Titles and Categories	Periodicals	9	(25)
	Newspapers	5	(13)
	Paperback books	8	(24)
	Reading Laboratory Series. D.H. Parke Chicago: Science Research	21	(61)

	Associates, various dates.		
	Reading for understanding. T. Thurstone. Chicago: Science Research Associates, 1962.	21	(61)
	Tactics, kits I, II & III. O. Niles, et al. Glenview, Ill. Scott Foresman, 1961.	5	(14)
	Basic Skills System. A. Raygor & J. Wallace. New York: McGraw-Hill, 1970.	3	(9)
28. a. What is the average reading grade level of student entering the course?	Below 6	6	(18)
	6 - 7	11	(33)
	8 - 9	33	(94)
	10 - 11	44	(128)
	12 and over	9	(26)
	Different levels for different courses (incl. above)	4	(11)
b. What is the lowest reading grade level of students entering the course?	3 or below	30	(87)
	4 - 5	23	(66)
	6 - 7	37	(107)
	8 - 9	7	(20)
	10 - 11	7	(19)
	Different levels for different courses (incl. above)	4	(11)
29. Are other tutorial services offered by the college in addition to the reading course?	Yes	51	(147)
	No	49	(141)
30. Are any other academic services offered by the reading instructors?	Question ambiguous - answers not tallied.		
31. What type of relationship has been established between the reading course faculty and the counseling services of the college?	Close	33	(95)
	Referral	33	(94)
	None	14	(40)
	Counselor part of program	8	(22)
	Some	11	(32)
32. Have the faculty members of the reading course done any team teaching at the college?	Yes	27	(79)
	No	71	(205)
33. Have the faculty members of the reading course held any in-service sessions for members of the college faculty in other departments?	Yes	32	(92)
	No	68	(196)
34. What is primarily the nature of your reading course?	Developmental	32	(91)
	Corrective	13	(36)
	Remedial	12	(34)
	Developmental & Corrective	7	(21)
	Developmental & Remedial	3	(9)
	Dev., Corr., and Remedial	42	(132)
	Depends on Course	8	(22)
35. How many different reading courses do you offer at your college?	1	60	(173)
	2	19	(56)
	3	8	(24)
	4	2	(6)
	5	1	(2)
	Lab only	3	(9)

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a. 21 of these were from states returning 3 or fewer and were not used in any other items of this survey.

b. These schools are eliminated from all other items in this survey.

c. Where school listed two in any one category, only indicated once.

DISCUSSION

The preponderance of reading courses at two-year junior and community colleges across the nation indicates an administrative recognition and acceptance of the need for such instruction.

A number of similarities exist in the reading courses at these schools. These similarities seem to be primarily related to an evident agreement among instructors and publishers of reading instruction material for this level that many entering freshmen require training in the basic skills of reading. It appears that, to a large degree, the materials available are determining what is being taught. For the instructor having no education in reading instruction, this may be regarded as at least a security blanket.

The diversities which exist within the reading courses seem to be related to the nature of the individual college--its budget, its locality, its size and its philosophy towards the entire concept of remedial education. These variables directly influence the organization of the reading courses and account for most of the uniquenesses from school to school.

Most of the reading courses offered at these institutions are designed for the student to take as a freshman to prepare him for his years ahead in college. Study skills are seen as a fundamental part of this preparation.

Textbook selections and course titles indicate that emphasis is not on teaching speed reading but rather on teaching the basic reading skills, including vocabulary and comprehension development.

The reading courses are generally identified as something less than college level work either by use of a different grading system, by not allowing course credit to be applied towards graduation, or by not giving any credit at all.

Many schools indicated changes planned for their reading courses. The changes focused primarily on the number of courses offered, credit arrangements and textbook selection. This indicates that an ongoing evaluation of the reading courses is fairly widespread.

Regardless of the formal educational background of the instructor, the large majority of those faculty members teaching reading have accepted some diagnostic testing responsibilities.

The multitude of division affiliations of the reading courses in our two-year colleges is perhaps the result of the comprehensive nature of reading itself: it cuts across all areas of learning and, consequently, to place it in one division may be just as effective as to place it in another.

The percentage and quality of response to this questionnaire would indicate a very healthy desire on the part of faculty members teaching reading at two year colleges to be kept informed as to what others in their field are doing and would suggest the need for repetition of this type of survey on a regular basis.

HAZEL BALLOU
Western Piedmont Community College

HOW TO PLAN AND ORGANIZE A READING PROGRAM IN THE COMMUNITY COLLEGE

The decade of the 1960's will be remembered across the nation for the rapid prolification of the community college system of education. With this structure arise various common needs - one being the exigency for a well-planned organized, effective reading program. Such a program must contain a number of essentials. It must be an integrated part of the total school learning situation with the school administration initiating, supporting, and helping to carry it out. The entire faculty should view the reading process as a basic tool of learning. They should feel free to refer any student who appears to be deficient or who desires to become a better reader. The program and services must be explained to the students, faculty, administrators, and the citizens of the community by qualified people who can handle the given tasks effectively.

FOUNDATION

The philosophy and objectives of the reading program should be based on the philosophy and objectives of the institution. These generally include the open-door policy, the recognition of individual uniqueness, and the expansion of cultural and technical knowledge. More specifically, the program should be based on the theory that the reader can become a better reader. The work should be initiated at the individual's present level of achievement so that continuous successful progress will be possible. Hence, it becomes essential to evaluate the student in a continuing process. This assessment can be made by analyzing the school's philosophy and objectives, entrance test scores in the reading area, program requirements, grades received in course work requiring a large volume of reading, and the student's own personal evlauations.

STAFFING

Ideally, there should be a Department of Reading to include every reading course in the curriculum. The department chairman should be given the same rights and privileges which the college allows for any other department head. However, if the student enrollment is small, or if the course offerings are limited, the program could be placed within a related established department. The number of reading specialists employed will depend upon the number of students enrolled and their unique needs, the curriculum offered, and the availability of other related professional per sonnel. For the average community college, there should be one full-time reading specialist per 500 students; however, quality may be more important than quantity. A search should be made to acquire the best prepared teachers. Bulletins could be sent to graduate schools, professional groups surveyed, and personal contacts made. An active file should be set up and continuously maintained for future references. Selections should be made by a committee composed of at least two representatives of the administration, the department head, and any other faculty member with whom the reading specialist would be closely working. Each member of the committee should be familiar with the applicant's background and have a specific list of inquiries to make at the interview. A closed discussion should follow where each committee member expresses his views pertaining to the possible employment of the applicant.

The committee should remember that the reading specialist has a dual role. Not only must he be an effective practitioner of the art and science of teaching but he must also be a genuine professional with a grasp of every facet of the total reading process. He shuld be able to plan, organize, execute, and evaluate the complete community college program. Anything may arise: Drawing sketches of a proposed reading suite, initiating new courses, or speaking with interested individuals and community groups about the reading process. Naturally, the most difficult and probably the most important task of all is evaluating both his own performance and the total program.

LOCATION AND FURNISHINGS

The reading program should be located near the center of the campus (and the Learning Resource Center, if one exists.) The area should consist of at least one classroom, small workroom, and office space for each of those teaching in the program. The suite could be titled "The Department of Reading," "The Department of Reading and Study Skills," "The Reading Center," or "The Reading and Study Skills Center." The internal arrangement should be in accordance with the students' needs, the philosophy and objectives of the program, and the wishes and desires of those engaged in the area. It provides for the permanent housing of equipment and materials for small classes; therefore, all courses included in the curriculum should be scheduled in the reading center. Other related courses, however, may be scheduled there if any unscheduled reading class time exists.

CURRICULUM

A course name, an assigned number, credit housr, a catalogue course description, and the prerequisite must be presented for each course in th reading curriculum. It may follow the sequential pattern which the college utilizes in its other curriculum offerings, or it could follow after the outlines which we developed. Outlines for Guided Studies Reading, Reading Improvement, and Speed Reading follow.

Guided Studies Reading - GSR 090, 4 Eq. Cr.

This course is designed to enable the student to improve his basic reading skills. Through class instruction and participation and personalized study, emphasis is placed upon individual improvement in vocabulary enlargement, word recognition, comprehension, reading in content subject areas, and various types of reading. Class three hours, laboratory two hours. A required course for all entering freshmen scoring below the 50th percentile on the college entrance examination.

A. General Objectives
 1. Teacher
  a. Measure and evaluate the reading needs of each individual student as demonstrated on formal and informal examinations.
  b. Set up and execute a comprehensive reading program which will enhance the individual student's progress in the reading area, evaluate by student's progress and comments and teacher's self-analysis.
  c. Measure and evaluate by formal and informal analysis, the individual student's progress so that a suitable future placement can be made.
 2. Student
  a. Improve comprehension by 15%, enlarge vocabulary by 10%, and increase reading speed to a minimum of 300 w.p.m., with at least 75 % comprehension, through class instruction and student participation, measured by formal and informal examinations and teacher observations.
  b. Use context clues, phonics, word structure, and dictionary to pronounce words through class instruction and student participation measured by teacher observation and test performance.
  c. Locate information and organize materials read through instruction and participation as demonstrated by formal and informal performance.
  d. Follow directions, select and evaluate materials while reading through class instruction and participation as demonstrated by formal and informal means.
  e. Read and interpret specialized materials such as graphs, maps, tables, charts, cartoons, diagrams, and pictures through class participation as evaluated by formal and informal means.

B. Schedule of Materials
   1. Orientation and measurement and evaluation of reading achievement.
   2. Vocabulary
   3. Word Recognition
   4. Clues to Better Reading
   5. Comprehension
   6. Critical Reading
   7. Reading in the Content Subject Areas
   8. Skimming and Scanning
   9. Exploratory and Study Reading
   10. Critical and Analitical Reading
   11. Measurement and evaluation of course and students

Reading Improvement - R I 100, 3 Cr.

A course designed to afford individual improvement in study skills and reading. Emphasis is placed upon vocabulary enlargement, various methods of studying, use of the Learning Resource Center, reading comprehension and speed, accomplished through class instruction and participation and personalized study. A required course for all entering freshmen scoring below the 75th percentile on the college entrance examination.

A. General Objectives
   1. Teacher
      a. Measure and evaluate the reading needs of each individual student by using the Nelson-Denny and the Davis Reading Tests.
      b. Set up and execute a comprehensive reading program which will enhance the individual student's abilities in the reading-study skills area, demonstrated by teacher analysis and students' progress.
   2. Student
      a. Improve study skills through class instruction and student participation, demonstrated by performance on formal and informal examinations. Study skills include:
         1) Use of the Learning Resource Center
         2) Effective lecture and textbook notes
         3) Improving concentration and remembering
         4) How to take exams
      b. Improve comprehension by 15%, enlarge vocabulary by 10% and double each individual's reading speed in various types of reading through class instruction and student participation as demonstrated on formal and informal examinations.

B. Schedule of Materials
   1. Introduction and Effective College Planning, Factors Influencing Organization of Time Schedule, and Nelson-Denny Reading Test.
   2. Vocabulary for Freshman in College, Learning Resource Center, and Open Day.

3. Exam, Effective Lecture Notes, and Concentrating and Remembering.
4. Effective Textbook Notes, How to Take Exams, and Open Day.
5. Exam, Basic Concepts in Advanced Reading, and Desirable Reading Habits.
6. The Writer, Organization of Reading, and Open Day.
7. Application of Basic Concepts in Exploratory and Study Reading and Exam.
8. Basic Concepts in Critical Reading, Effective Graphic Presentations Reading, and Effective Newspaper Reading.
9. Inference Textbook Reading, Basic Concepts in Creative Reading, and Creative Reading.
10. Scanning and Skimming Practice.
11. Exam, Course Review and Oral Evaluation, and Nelson-Denny Test.

Speed Reading SR 110, 1 Cr.

A course designed to afford individual improvement in speed reading and comprehension, emphasizing various methods and techniques of reading. Prerequisite: RI 100 or score above the 75th percentile on the college entrance examination.

A. General Objectives
  1. Teacher
    a. Measure and evaluate the reading needs of each individual student by using the Nelson-Denny Reading Test.
    b. Set up and execute a comprehensive reading program which will enhance the individual student's abilities in the reading-study skills area, demonstrated by teacher analysis and the student's progress.
  2. Student
    a. Triple the reading rate with the same or improved comprehension.
    b. Become a flexible reader.
    c. Gain some major concepts pertaining to the reading area.

B. Schedule of Materials
  1. Introduction, Objectives, and Evaluation.
  2. Definition of Reading, Types of Reading, and Practice Scanning and Scanning.
  3. Characteristics of Good and Poor Readers, Vocabulary, Word Recognition, and Practice Scanning and Skimming.
  4. Ways to Improve Comprehension and Practice.
  5. Continue with Ways to Improve Comprehension and Practice.
  6. Open Day.
  7. Practice on Exploratory and Study Reading and Discuss Critical Reading.
  8. Clues to Reading Various Types of Reading Materials and Practice.
  9. Individual Practice.
  10. Individual Practice.
  11. Individual Practice and Evaluation.

MEDIA

The media should be purchased and used in relationship to the students' needs, the philosophy and objectives of the program, the curriculum offered, and the teacher's methodology. There are two major types of media to be considered - hardware and software.

The hardware media consists of all materials which are primarily of a machine nature. The following suggested list may be followed:

1 overhead projector
1 opaque projector
1 filmstrip projector
1 record player
1 filmstrip and cassette player combination
1 small stop watch
2 tachistoscopes for group work
2 tachistoscopes for individual work
2 pacers
2 tape recorders
2 filmstrip previewers
7 cassette players with master control

Course outlines, books, newsppers, magazines, and commercial and teacher prepared materials would be considered software media. These may include:

A generalized course outline for each course in the reading curriculum, consisting of a title page, catalogue course number and description, teacher and student behavioral objectives, tentative schedule of materials, and necessary media. The course outline should be revised when needed, and should be available to the teacher, department head, and division director or dean of the college.

A basic course reference which could be one or more books, selected readings, or teacher-prepared materials. Books we have used are:

Bamman, H. A., et. al. *Free to Read: A Guide to Effective Reading. Atlanta: Field Educational, 1970.*

Bieda, M. R., & Woodward, V. S. *Realizing Reading Potential.* Holt, Rinehart and Winston, 1971.

Judson, H. *The Techniques of Reading.* (2nd ed.) New York: Harcourt, Brace & World, 1963.

Karlin, R. *Reading for Achievement.* New York: Holt, Rinehart and Winston, 1969,

Leedy, P. D. *Read With Speed and Precision.* New York: McGraw-Hill, 1963.

Morgan, C.T., & Deese, J. *How to Study.* New York: McGraw-Hill, 1969.

Norman, M. H., & Norman, E. S. *How to Read and Study for Success in College.* New York: Holt, Rinehart and Winston, 1971.

Books

Brown, J. I. *Programmed Vocabulary.* New York: Harcourt, Brace & World, 1965.

Christ, F. L. *Studying a Textbook: Exercises in Chapter Study and Textbook Reading.* Chicago: Science Research Associates, 1966.

Coover, S. L., et. al. *Programmed Blueprint Reading.* New York: McGraw-Hill, 1964.

Gray, L. L. *Better and Faster Reading.* Broxville, N.Y.: Cambridge Book, 1964.

Markle, S. M. *Words: A Programmed Course in Vocabulary Development*. Chicago: Science Research Associates, 1962.

O'Dea, P., et. al. *Developing Ideas: An Individualized Writing Sequence*. Chicago: Science Research Associates, 1966.

Pratt, J. C. *The Meaning of Modern Poetry*. Garden City, N.Y.: Doubleday, 1962.

Simpson, E. A. *Better Reading Book*. Chicago: Science Research Associates, 1951.

Spalding, R. B., & Spalding, W. T. *The Writing Road to Reading*. New York: Whiteside, 1966.

Ward, F. E. *Spelling and Vocabulary: Reinforce Your Learnings*. San Francisco: Chandler, 1963.

Witty, P. *How to Become a Better Reader*. Chicago: Science Research Associates, 1963.

Witty, P. *How to Improve Your Reading*. Chicago: Science Research Associates, 1963.

Witty, P. & Grotbert, E. *Developing Your Vocabulary*. Chicago: Science Research Associates, 1960.

Labs

Dimensions in Reading: Manpower and Natural Resources. Chicago: Science Research Associates, 1966.

Habryl, J. *Pilot Library IIIb*. Chicago: Science Research Associates, 1964.

Parker, D. H. *Reading Laboratory IIa*. Chicago: Science Research Associates, 1958.

Parker, D. H. *Reading Laboratory IIc*. Chicago: Science Research Associates, 1960.

Parker, D. H. *Reading Laboratory IIIa*. Chicago: Science Research Associates, 1957.

Parker, D. H. *Reading Laboratory IIIb*. Chicago: Science Research Associates, 1964.

Parker, D. H. *Reading Laboratory IVa*. Chicago: Science Research Associates, 1959.

Raygor, A. L., & Wallace, J. *Basic Skills System*. New York: McGraw-Hill, 1970.

Thurstone, T. G. *General Reading for Understanding*. Chicago: Science Research Associates, 1959.

Thurstone, T. G. *Junior Reading for Understanding*. Chicago: Science Research Associates, 1963.

Gould, A. *Imperial Intermediate Reading Program*. Kankalee, Ill. Imperial International Learning, 1970.

Cassettes

The Bergen Evans Vocabulary Program (Cassettes and filmstrips). Wilton, Connecticut: Communacad, 1965.

Davis, N. B., & Moreland, E. F. *Techniques of Study*. Bloomington, Indiana: Self Instructional Reading Service, 1968.

Davis, N. B., & Ruff, A. C. *Techniques of Speed Reading*. Bloomington, Indiana: Self Instructional Reading Service, 1969.

Games

Word Power. Baltimore, Maryland: Avalon Hill Company, 1967.

Allen, R. W., & Greene, L. *Propaganda*. New Haven, Connecticut: Autotelic Instructional Materials, 1969.

Films

Perception and Communications. Ohio State University, 1967.

Ways of Learning. McGraw-Hill Films.

Filmstrips

Effective Study Methods (filmstrips and records). Navaree, Ohio: Effective Learning Corporation, 1967.

Learning Through Association (filmstrips and records). Navaree, Ohio: Effective Learning Corporation, 1967.

How to Read A College Catalog. Pleasantville, New York: Guidance Associates.

The Dictionary. RMI Films, 1969.

The Research Paper. RMI Films, 1968.

Filmstrips for Control Reader. (H-G through M-N.) Educational Developmental Laboratories.

Fields, I. H., & Kirkpatrick, L. A. *Craig Reading Programs*. Los Angeles: Craig Research, 1962.

McAuliffe, G. (Ed.), *Decoding for Reading*. New York: Macmillan, 1968.

Tapes

Anderson, L., et. al. *Listen and Read*. Huntington, New York: Educational Developmental Laboratories, 1961.

Knoll, C. *Problem Solving* (tape — slide set). Washington: National Education Association.

Xerox Basic Systems. *Effective Listening: A Basic System Program*. New York: Xerox, 1965.

SUMMARY

There are various factors involved in planning and organizing a reading program in the community college. The students' abilities must be assessed; then a program planned and organized to fulfill their unique needs. The establishment of the reading program should include the following considerations: sound philosophy and objectives, well-qualified staff, central location with modern furnishings, and balanced curriculum with appropriate media. If the program has been well-planned and organized, then the execution and evaluation aspects of the total program should result in the enhancement of the students' learning processes.

JOHN J. CAMPBELL
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READING AND STUDY SKILLS AT THE UNIVERSITY OF MARYLAND

In September 1971, the Reading and Study Skills Laboratory of the University of Maryland instituted a program in which a student is allowed to receive one academic credit for completing a study skills course.

This step was taken in an attempt to meet the needs of the many students who were coming to the reading lab requesting help. Unfortunately, many of these students either were not aware of their reading problems or would not face the fact that they had problems. The most common request we heard was for help in "speed reading." At the time, no reading diagnostic instruments were administered to the student and we had to rely largely on his judgment that he knew what he needed. In some cases, this worked very well; the student who did need this kind of approach was being satisfied.

But what of the many students who need much more than "speed reading" techniques? Generally, such a student would come to the lab for a few visits, discover that his needs were not being met, and then stop coming to the lab. We theorized that many of these students who came only once or twice, and then dropped out, would benefit from a program in which they would be required to see their reading counselor for a minimum of three hours a week for a ten week period. As a part of this program the student would receive adequate diagnosis through formal and informal measures and also receive help in a personal way. The personal as well as the academic approach to this situation seemed to us to be of the utmost importance, especially on such a large campus as Maryland where it is easy for a new student to feel lost, bewildered, and lonely.

The basic approach to this course also involved the developing of competencies, both by the staff and the students. Initially, the staff developed a set of competencies for students that we felt were needed to achieve academic success in college. This list of competencies is currently being revised by both the staff and students to make it more meaningful and relevant.

COURSE CONTENT

The challenge of providing a course that will interest the students, as well as help them academically demands that we take the most practical approach possible.

Scheduling

All students are required to fill out a schedule for one week. We are not interested in mundane events of the day, but use the schedule in an attempt to point out to the student that time is available to him to study during the day, rather than wait until after dinner and the confusion of dorms, friends, etc.

Diagnosis

Formal measures such as the *Nelson-Denny Reading Test* and Brown-Holtzman *Survey of Study Habits and Attitudes*, and informal measures such as an incomplete sentence test and an informal reading inventory are utilized. The tests are interpreted by the reading counselor, who discussed the results with the student and agrees upon a course of independent work in addition to the course requirements.

Typically, the student is reading on the high school level, is disorganized in his approach to studying and feels that the university is working against him.

Organization Skills in Reading College Textbook Material

An attempt is made to have the student look critically at the organization of his textbooks. He is asked to keep in mind certain questions; i.e., Does the author follow a regid pattern in developing his paragraphs? What typographical as well as illustrative clues does the author use? Does the format of the book allow the student to see the scope and sequence of the material being presented?

Students are required to analyze three chapters of one of their textbooks. After each student performs the task he is given instructional packets to help develop his such skills as *finding specific details*. Our main goal in presenting the student with these assignments is to allow him the opportunity to discover for himself which organizational skills of reading he will need for a particular textbook. It is hoped that the student will see that there is a need for practice exercises that will help him learn to quickly recognize the author's pattern. In the past, there were many students who complained bitterly about performing exercises that seemed to them irrelevant and elementary.

Summarizing

The goal of reading is comprehension. One way to measure whether a student has understood what he has read is by examining his ability to summarize a selection in his own words. This thought was emphasized throughout the course; i.e., To gain true understanding, you must be able to take the message from the printed page, internalize the message, and summarize this information in your words. In individual conferences with students or while actually watching them study it becomes quite evident that most of the students never bother to stop and summarize what they have read, either written or a mental summation. The usual answer is "I do it at the end of the night," when in fact they rarely do it at all. Students are encouraged to stop and summarize what they have read each time they feel confused while studying and to keep a log of how many times they did this. The results were interesting. One student read a thirty page essay in a government and politics book and stopped only once. He stated that when he attempted to summarize what he had read, he became confused and could not remember it in sequence. He remembered the general theme but not many of the main points that led to the development of the theme. He attempted the article a second time and this time stopped fourteen times to summarize. It took him ten minutes longer, but this time he felt he understood what he read. Another student stopped twenty-seven times to summarize for a chapter in Zoology. He said it took him almost one hour longer to study the material but it was the first time he really felt confident about knowing the material. For practice, student are given two types of material. The first type is a chapter from a psychology textbook that is already summarized in the margins. This gives the students an opportunity to look at some examples of paraphrasing that will help them. The second type is also a chapter from a psychology textbook, but without any summaries. The students are expected to summarize that chapter and compare their results with a sample already summarized. In addition to practice on textbook material, the students are given essays and parts of a novel that are not written or organized in the typical textbook fashion.

These practice exercises are of the most practical value, according to statements made by the students. It makes them aware of the necessity to constantly focus their thinking on what the author is saying. It also is an invaluable tool in terms of keeping the student's concentration focused in on the subject he is studying.

Listening Skills

Due to the nature of university classes the mode of learning is frequently aural. A student can find himself in dire straits if he does not have good listening skills. We use the approach of developing listening skills in conjenction with units on outlining and notetaking. Our major purpose is to impress upon our students the need to become an effective listener. The students listen to a tape and are given the opportunity to consider the ten necessary listening skills and, more importantly, to react to the ten excuses usually used by the bad or ineffective listener. The students are also directed to do work in a programmed listening unit and to listen to recorded lectures in various subjects.

Notetaking

We examined the notebooks of our students and for the most part found them unorganized and poorly written. Many of our sutdents follow no organized system for taking notes; as a result their notes are in a confused state. The confusion becomes more evident when students are unable to rearrange their notes or summarize a lecture from notes taken within one week of the lecture.

We approach the notetaking phase of the program from two standpoints; notes from lectures and textbook notes. For lecture notetaking, the listening skill unit is extremely helpful in presenting suggestions and techniques. The students are encouraged to use a form that allows space for the addition of key works and for summarization. The students are also encouraged to look at their notes as soon as possible for the purpose of review. Included in this unit are various skill building exercises in outlining, which follow practice exercises in reading for the main idea.

For taking notes from textbooks, the students are encouraged to look for the organizational patterns of the textbook and decide what form of note-taking will best fit their needs. In some instances, the outline form of notes prove to be very helpful; in other instances the use of an outline does not faciliatte learning the material. Therefore, the students are encouraged to try to formulate their own method of taking notes.

Varying Rates of Reading for Specific Purposes

The goal of this unit is to deemphasize the use of speed reading techniques and emphasize the need for establishing purposes for reading. These purposes in turn determine what reading speed the student will use. We found this to be an extremely difficult task. Because the students have had little or no experience in establishing purposes for reading, much of our time is spent training students by means of short exercises, to set realistic purposes for the reading.

Another crucial factor is that the students have very little experience in establishing different rates of reading. They usually read either very fast or very slow. They have great difficulty in adapting their rate of reading to the material.

We undertake the training of the students by alowing them to write down their purposes and then read the exercise. The students commented that they realized that the purposes they set are superficial and that it is necessary to think about the material for the establishment of realistic purposes.

The students are also given a variety of material with which to practice varying their rates. This material has pre-set purposes or goals to be accomplished by the reading, and students are encouraged to gamble with their reading speed as long as they remain conscious of the purpose and author's organization.

Study Technique

This unit is presented in the sequence as a result of our experience with many of the students who come to the lab and express an interest in learning a study technique. Our resources are limited in terms of what we know about the student's ability to perform the myriad of skills necessary to successfully utilize a study technique. Our course is an attempt to lay the foundation for the skills necessary to successfully use a study technique. When we present the SQ3R technique, we cover one step at a time and allow adequate practice time for each student to become comfortable with it before proceeding to the next step. For example, each student is given practice in surveying several different types of reading material of varying format and readability. The students are also encouraged to develop skill in asking questions above the literal level. Most of the students start the technique simply by looking at a major heading in a text and inserting why? in front of the heading. We encourage them to develop critical questioning and thinking skills that will help them in analyzing the material. The students are reacting favorably to this technique and tell us they are using it in their tsudying. We hope this is in part due to laying the foundation in developing essential reading and organization skill.

Individual Sessions

A keystone feature of this program is having the student meet in groups and individually with the reading counselor. Individual conferences can give the instructor a great deal of insight into the attitude and motivation of the students in his class. In addition the counselor and the student have an opportunity to relate to each other on an indivual basis. In these situations the reading counselor finds himself performing many roles. He may actually become the student's advisor and help cut through the red tape of large universities to help with specific problems. This is extremely important, for the student beigns to establish a relationship with someone he really feels cares about him as an individual. Also, by trying to alleviate some of the outside pressures and frustrations, you allow the student to expend most of his energy on school work rather than just coping with the system.

From a reading point of view it gives the counselor an excellent opportunity to have on going diagnosis of the student's reading problems and helps in identifying specific areas the students need to work on.

The group meetings of the class changed drastically after the first few weeks. We had an opportunity to meet and talk with each student in the classes and got to know all our students on a level rarely experienced by most college instructors. It had a very beneficial effect on the group as a whole in terms of attitude and motication. Many of our classes seemed to be a meeting of friends rather than a "class." For the first time since being in college, these students got to work with and know their classmates. Whatever success their class has enjoyed, meeting with the students individually and really getting to know them must be responsible for a large share.

SUMMARY

Although the classes I have discussed are still in progress, we feel they are highly successful. Although we have no hard data collected as yet, we have seen changes in behavior that are extremely gratifying.

The students in these courses are receiving one academic credit for attending. This amounts to thirty clock hours per semester. As of November 15, ninety percent of the students had already put in more than thirty clock hours of time; either in class sessions, individual conferences or doing individual work in the reading lab.

We feel we are on the way in developing a viable reading and study skills program. We have encountered some problems such as the utilization of a large amount of staff time for a limited number of people and the need to develop more relevant practice material the students can work on.

We hope to be able to produce some hard data in the future that will serve as further direction for the development of our program.

SUSAN ANN HOWELL
Floyd Junior College

A READING AND STUDY SKILLS COURSE AT FLOYD JUNIOR COLLEGE

This paper describes the procedures taken and the results obtained in the planning of the curriculum for the combination reading, listening, and study skills course entitled Education 100 at Floyd Junior College.

ACTIONS PLANNED

I. Survey materials and teaching methods used in other junior college reading and study skills courses.
II. Examine reading and study skills texts for use in this course.
III. Study and select reference books, films, software, and hardware to be used.
IV. Study screening procedures of other junior colleges in deciding how to select students for this course.
V. Decide on teaching methods most relevant to this course.
VI. Plan the curriculum for the course

ACTIONS TAKEN

I. The DeKalb, Clayton, and Dalton Junior College reading departments were visited.
II. Letters were written to several colleges asking for course descriptions of their reading and study skills programs.
III A study was made of reading and study skills problems of freshmen, with the help of instructors and professors at Floyd Junior College. The results of this study showed that entering freshmen have difficulty with note-taking, doing required reading, keeping up with

daily studying, taking essay examinations, and following written instructions.

IV. Objectives of the course were planned. They are included in the course description.

V. Textbooks from various companies were considered for adoption. Each text was judged according to whether it would be beneficial in carrying out the objectives of the course. Although a variety of texts were chosen for resource materials, no specific one was selected for use by all students. Specific books are recommended for purchase by individual students whose needs can be served by those books.

VI. Films, filmstrips, tapes and hardware were studied. So far no films or filmstrips have been chosen although they are still being reviewed. The Xerox Effective Listing program was selected. Five Shadowscopes were purchased.

VII. The basic methods for use in teaching the course were decided upon. The decisions made were based on how best to fullfill the objectives of the course. The course description explains the methods chosen.

VIII. Screening for the course was based on the McGraw Hill Reading Test. Of the three part test, if two scores were below the fifth stanine students were recommended for the course.

IX. Recycling of the course will depend on the following:

a. Evaluation of the course by the students and by the instructor.
b. Reactions from students in class discussions.
c. Re-evaluation of screening procedure for the course.
d. Measurement of improvement of students' study skills and reading skills as determined by teacher made tests and McGraw Hill Reading and Study Skills Tests (Raygor & Wallace, 1970).
e. Grades made by present students as they continue through college.

OBJECTIVES

1. Present a course in reading and study skills in order to enable the students to achieve greater success in college.
2. Examine different note-taking formats.
3. Acquaint the students with different types of lectures which they will encounter in college. These lectures are classified mainly as inductive, deductive, chronological, and explanatory.
4. Develop skill in note-taking through practice and evaluation of note-taking procedures.
5. Enable each student to improve his vocabulary in subject matter areas through directed vocabulary work in materials introduced during the course.
6. Motivate each student to evaluate and to improve his place of study.
7. Help each student develop a study schedule appropriate to his own needs.

8. Present a systematic approach of reading improvement which will enable each student to improve his ability in reading college texts.
9. Help each student improve his specific areas of weakness in reading.
10. Familiarize the students with massed and distributed study.
11. Acquaint the students with techniques of preparing for and taking objective and subjective tests.
12. Provide the students with suggestions for studying in different subject matter areas.
13. Acquaint the students with methods of reading graphic presentations.
14. Make students aware of the Library of Congress method of classifying books and give them practice in finding materials according to this method.
15. Introduce the students to library reference materials and provide them with some experience in using these materials.

COURSE OUTLINE

1st Week

Explain objectives and course outline.

Give and graph pretests in reading, study skills, listening, and note-taking.

Introduce listening skills through lectures and listening skills tapes.

2nd Week

Explain different formats used in note-taking and discuss note-taking techniques.

Examine inductive and deductive lecture methods.

Practice note-taking with deductive and inductive lectures given by the instructor. *Inductive Lecture* "How to Plan Your Study Area." *Deductive Lecture* "Budgeting Your Time."

Student evaluation of note-taking. The instructor will respond in a give-and-take classroom session to difficulties encountered in note-taking by the students.

3rd Week

Explore differences between the explanatory and the chronological lecture.

Practice note-taking on an explanatory lecture taped by the business department. *Explanatory Lecture* "Three Forms of Business Organizations." *Chronological Lecture* "The Firing of MacArthur."

Student and teacher evaluation of notes in a give-and-take session. Begin vocabulary work, using students' notes of taped lectures.

Check students' schedules assigned during first week. Discuss improvements that need to be made.

4th Week

Introduce skills needed to read effectively paragraphs, chapters, and specific parts of texts.

Begin to develop these skills through work in excerpts from texts in history and economics related to tapes presented during the week.

Continue vocabulary improvement through a study of words selected from the excerpts being used.

Check students' weekly time schedules.

5th Week

Acquaint students with the techniques of study designed to master the essentials of a specific assignment.

Acquaint the student with the techniques of study needed to prepare the student comprehensively for the presentation of wide ranging materials on examinations and in long papers.

Continue to develop reading skills through introducing scientific reading material from the biology excerpt. Teacher and student evaluation of reading skills.

Practice note-taking from taped biology lecture entitled "Characteristics of Mosses, Lichens, and Liverworts." Continue to develop vocabulary skills.

Check the students' time schedules.

6th Week

Discuss methods used in preparing for and taking objective tests.

Study methods of improving test scores through teacher-made exercises of true-false, multiple choice, matching and objective questions.

Prepare for and take sample biology test (objective) over material covered during the fifth week.

Continue vocabulary development.

Check students' time schedules.

7th Week

Discuss methods used in preparing for and taking subjective tests. Practice taking notes from tape prepared by the English department entitled "Writing Better Themes." Use transparencies concerned with the taking of subjective tests.

Guided practice in reading from excerpt of theme writing in English text.

Continue vocabulary development.

Check students' time schedules.

8th Week

Review all skills covered and emphasize methods to use in studying history. Practice reading skills from excerpt of history test, listening and note-taking skills from history tape on "The Treaty of St. Germain." Practice methods of preparing for and taking tests through sample objective and subjective test questions over tape and text.

Continue vocabulary development.

Check students' time schedules.

9th Week

Introduce reading graphic presentations. Discuss:

1. Line graphs
2. Bar graphs
3. Pie charts
4. Statistical maps
5. Organizational charts

6. Pictograms
7. Sociograms

Students select four types of graphs and graph data supplied to them by instructor.

Continue vocabulary development.

Check students' time schedules.

10th Week

Librarian introduces Library of Congress Classification System used at Floyd Junior College through lecture and tour of the library. Various reference books are discussed and displayed. Student research of reference books is conducted through the use of an application type test devised by librarian.

Continue vocabulary development.

Check students' time schedules.

11th Week

Give and graph post tests in reading, study skills, listening, and note-taking.

Summary and evaluation.

COURSE DESCRIPTION

The aim of Education 100 at Floyd Junior College is to teach students reading, listening, note-taking, and study skills necessary for college success. Providing the student with adequate practice to enable him to realize mastery of these skills is an important part of this course.

Involving the faculty of the college in preparing materials for the course contributes to the success of the program. Each faculty member prepared a taped lecture, an excerpt from his text which served as a basis for his lecture, and a sample test over this material. The instructor was provided with relevant teaching aids and the college faculty became more aware of the needs of these students in their classes.

In order for this course to be meaningful, it is important for each student to experience improvement through application of principles that are introduced. Students are tested at the beginning of the course in listening, note-taking, reading and study skills. Each student's scores are graphed and made available to him. At the end of the course, post tests are given and scores are graphed to show the progress made by each student. Although this method of evaluation is useful, the evaluations made during the quarter by the student and instructor as skills are mastered are considered equally important.

Lectures by the instructor and commercially prepared tapes are now being used to introduce listening skills. The course instructor is in the process of preparing tapes which will be more appealing to college students. Plans are for these tapes to be completed and in use by spring quarter of 1972.

Note-taking skills are taught by the instructor and developed by each student through practicing note-taking from tapes prepared by the faculty.

Different formats used in note-taking are presented to enable each student to decide on one most appropriate for him. These formats are borrowed from Pauk's *How to Study in College* (1962). Students evaluate their improvement through a scoring system adapted from Palmatier (1971). Transparencies prepared by the instructor provide keys for each student to use in judging his notes.

Each student evaluates and improves his place of study. He also developes a system of budgeting his time and keeps a weekly schedule of planned activities. These two facets of the course are described in inductive and deductive lectures so that the students may develop skills in notetaking while at the same time they are exploring suggestions that will enhance the value of their study time. The terms *inductive* and *deductive* are drawn from *Systems for Study* (Raygor and Wark, 1970).

Integration of study skills with reading skills in a relevant situation is a unique characteristic of this course. Skills necessary for reading college texts are taught by the instructor. Students work to develop these skills through guided reading in the excerpts prepared by the faculty. Specific reading skills include the following:

1. Reading a paragraph to find the main sentence and supporting facts.
2. Reading a chapter. Intensive work on previewing a chapter before it is read, reading the chapter to organize main points and supporting facts, and recalling the most important ideas after reading are emphasized. The habit of making important questions from the chapter is encouraged. Although underlining is not emphasized, it is taught. Students are taught to exercise judgments in differentiating between fact and opinion and to adjust their rates of reading to the varied purposes of their reading.
3. Reading specific parts of a text including title page, table of contents, introduction, preface, appendix, and index.
4. Reading graphic presentations.
5. Vocabularly improvement.
6. The use of reference materials.

Selected reading materials are assigned to students who show weakness in specific skills as indicated by the diagnostic pre-test. These skills include the following:

1. Reading to understand the main idea.
2. Reading for significant facts.
3. Organizing material as one reads.
4. Skimming and scanning.
5. Reading at efficient rates.

Classroom practice in preparing for and taking tests involves lectures by the instructor, actual practice in taking sample tests devised by the faculty, and exercises in taking examinations adapted from Gilbert's *Study in Depth* (1966).

The course is planned so that reading skills in different disciplines develop naturally.

During the quarter a student who is experiencing difficulty in any course may choose to work individually on tapes, excerpts from texts, and tests related to the course with which he is having difficulty.

It will be apparent from the outline that all facets of this Education 100 course have been designed for maximum coordination. Techniques are presented and discussed theoretically. Then students gain practice in the use of the techniques discussed by means of exercises with the taped lectures and printed excerpts. These exercises are then followed by careful evaluation of the effectiveness of note-taking and other study techniques in open and free discussion in class. The students' individual time schedules are checked from week to week and serve as a precise measurement to assist the student in determining his individual study requirements. Even the specific skills required for the proper approach to the reading of graphic presentations, and the practical procedures necessary for working rapidly and efficiently in the library are closely integrated with the materials studied elsewhere within the course. Vocabulary improvement emerges naturally from the material of the course, though the treatment of this important matter is not at all marginal. Unity and coherence, structure and proportion are human inventions imposed upon material in an effort to make sense of the chaos that surrounds us in the world of knowledge and experience. To learn and to remember one must establish pattern, and this course, both in content and in format, is premised on this belief.

The course outline suggests the structure of the course as it is taught each quarter; however, the materials are changed from quarter to quarter so as to represent a greater number of areas within these major disciplines of the college.

REFERENCES

Farquhar, W.W., Krumboltz, J.D., & Wrenn, C.G. *Learning to study*. New York: Ronald Press, 1960.

Gilbert, D.W. *Study in depth*. Englewood Cliffs: Prentice-Hall, 1966.

Leedy, P. D. *Read with speed and precision*. New York: McGraw-Hill, 1963.

Morgan, C.T., & Deese, J. *How to study*. New York: McGraw-Hill, 1969.

Palmatier, R.A. Comparison of four note-taking procedures. *Journal of Reading*, Jan. 1971, *14*, 235-240, 258.

Pauk, W. *How to study in college*. Boston: Houghton Mifflin, 1962.

Pettit, L. *How to study and take exams*. New York: John F. Rider, 1960.

Raygor, A. L., & Wallace, J. *Guide to McGraw-Hill basic skill system*. New York: McGraw-Hill, 1970.

Raygor, A.L., & Wark, D.M. *Systems for study*. New York: McGraw-Hill, 1970.

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THE ROLE OF THE READING TEACHER IN AN INTERDISCIPLINARY PROGRAM IN THE JUNIOR COLLEGE

At Miami-Dade Junior College, Community College Studies consists of a department chairman, Mr. David Porter, and twenty teaching staff. The 20 staff members represent 5 disciplines--English, social science, natural science, psychology-counseling and reading. One member of each discipline is on an interdisciplinary team. These teams are referred to as I-Teams. Each I-Team teaches the same group of 110-125 strudents for their freshman year.

The total body of CCS students, 435 strong this year, are randomly selected from the list of all students who apply to our north campus and who scored below the 25th percentile on the Florida Twelfth Grade Placement Test, with an aptitude score of 23 or below.

The philosophy of the program is that these students can achieve in their freshman year of college through a multi-media, small-group, individualized program and that after completing their freshman year they will be equipped to continue through 3 more years of college and or select a realistic career choice which is achieveable for them.

The CCS program originated two and a half years ago as a three year experimental program designed to see if this type of approach could meet the needs of the below-average learner. One measure of our success has been our graduation record. The first class of CCS has graduated 50 percent more students than Control Group 1 (whose students met the same qualifications as CCS students but who took the regular college courses) and 33 percent more students than Control Group 2 (whose students also met the same qualifications as CCS students, but who differed from Control

Group 1 in that they were required to take a non-credit English course and a non-credit math course before taking college level English and math.)

When we first began the program, the discipline teams were the main forces in establishing behavioral objectives, activities and techniques for each discipline,. The emphasis has now shifted to the I-team. We spent the last spring and summer terms developing behavioral objectives and activities that cross disciplinary lines and thus make our curriculum truly interdisciplinary. One I-team set of objectives developed this summer deals with study and library skills. Each I-team is free to develop its own approach to these objectives with the entire team responsible for seeing that the objectives are met. Thus the reading and English teacher may work jointly on an approach to doing library research with the English teacher introducing the card catalog and its information, the Reader's Guide, etc., while the reading teacher shows the student how to use a reference book employing skimming and scanning techniques. The social science or biology instructor may assign a small project which requires doing limited library research. Thus the skills find immediate use, relevancy and reinforcement.

Another type of interdisciplinary experience we have shared took place last spring when we held an Economy Road Rally. The students had been investigating various aspects of pollution in both their science and social science courses. They had read newspaper and magazine articles on the topic in reading. In addition, map reading and skills in following directions had been dealt with in reading. In English, the students had dialogued on pollution articles, written papers on the subject and had shared with the career counseling class the various skills involved in interviewing. The Road Rally was the culminating activity. The basic design was that the students were to follow a predesignated route which led to the pollution hearings in Fort Lauderdale with the winner determined by the amount of gas used, mileage covered and time taken. The students' cars were checked in at a filling station near campus, their mileage recorded and time of departure noted. Along the route were a number of check points which they had to pass. The route took the students through areas of Miami chosen specifically for the types of pollution visible. After the students had checked-in at the proper filling station in Fort Lauderdale, they went to the Court House where they not only listened to testimony at the hearings but some also spoke. This activity provided the students with a practical, enjoyable vihicle for using their acquired skills and knowledge.

Naturally all the five disciplines cannot be completely interdisciplinary all the time. What value is there in introducing a student to a reference book if he is unable to read it? While social science, biology, and psychology can cooperate in presenting a drug unit and the English teacher can require a composition written on the subject--how does the individualized reading program tie-in?

What is the role of the reading teacher in the interdisciplinary program just described? First let me tell what I have learned it is NOT.

It is *not* to rewrite a textbook, chosen by another discipline, so that its 14.7 reading level will be understandable to the students who have reading levels ranging from 4th to 9th grade.

It is *not* to read to the students from their textbooks and then to interpret what was read.

It is *not* to teach the vocabulary of another discipline so that the instructor of that discipline can carry-on with his important concepts.

It is *not* to spend each precious reading hour helping desperate students who find other classwork too difficult and or incomprehensible.

Thus it is *not* the role of any reading teacher in an interdisciplinary program to sit idlely by while some well-meaning professors choose textbooks which are too difficult; fail to see their responsibility in developing their students' knowledge of specialized vocabulary; make assignments which are too difficult and irrelevant; and do not fully understand the nature (natures, really) of the remedial student.

The first year of CCS's operation the reading instructors were isolated not only intellectually but physically from the other members of CCS. This was due to space problems, not some plot! It was a hard year in which all of the reading teachers, at some time or another, adopted the "not" role. Even though we met with our I-team once a week, were the outsiders and responded as such. We, as reading teachers, had not yet come to grips with our own role so the role of reading was still not established in the interdisciplinary program.

Then the spring and summer terms came and so did our faculty curriculum workshop. Daily contact with the entire faculty, some sympathetic ears and the reading teachers began their crusade—and established their role. The steps we took are ones which I feel are applicable in many interdisciplinary settings.

We found that our first step must be in establishing ourselves as individuals. So we went through the "getting-to-know-you; I respect you and your opinions, how about me and mine?; yes, I *do* know something besides reading techniques; I, too, am an intelligent, fairly-normal person." As confidence grew so did our effectiveness in getting our viewpoint across.

Once we knew one another, step two was begun--establishing ourselves as reading consultants to the rest of the faculty. Since we were all discussing approaches, techniques and behavioral objectives of all the five disciplines in the curriculum workshop, the reading teachers had the opportunity to assert themselves, offer suggestions and subtly get in our mini-lessons in reading.

Thus step three, educating the faculty, was on its way.

Once we had established ourselves in the large group as experts, we found our role on our individual I-teams changing too. We were being called on as general education consultants as well as for suggestions for approaches to reading assignments and vacabulary presentation.

While the CCS reading teachers were aware that most college textbooks were quite beyond our students' reading levels, this awareness had not been shared by the rest of the faculty. This past fall, we were rewarded in our efforts to educate the faculty when the faculty adopted the policy that no textbook order of more than 25 books can be made without 2/3rds of the entire faculty's approval. In addition, behavioral objectives have been rewritten in terms geared to our students' comprehension and all textbooks being considered for use are first sent to the reading teachers for readability checks and review.

Thus we can see that part of our role as reading teachers in an interdisciplinary program is to establish rapport with the rest of the faculty, create a cooperative atmosphere and establish ourselves as consultants.

But the role must go beyond that of faculty consultant, however. But how does one have an individualized reading program for each of 100 students and yet teach interdisciplinarily?

The CCS reading program is set up so that the stuents first take criterion tests on behavioral objectives. Those objectives on which the student scores below 80 percent then make up his program. For each objective there are a variety of activities which may range from commercial and teacher-made taped lessons on a particular skill, to one or two pages out of each of several different texts, to teacher-made dittos, to parts of commercially prepared programmed materials and any combination of the aforementioned depending on the depth of the student's weakness and his reding level. When the student feels competent in a skill, he requests a criterion test and if he passes the test with an 80 percent or better, he moves on to his next skill weakness.

In order to make this individualized program fit into the interdisciplinary program, the reading teacher has to be on a constant search for any type of reading material that fits topically into the curriculum of the students and can also be used an as effective exercise under one or more behavioral objectives for reading. As an example, in February the social sciennce and English curriculum will be centered around minority groups with special emphasis on balck-white relations. We, in reading, are currently adapting related materials so that if a student is working on finding main ideas at that time, he can read paragraphs or longer selections that deal with that subject and still find the main ideas. Or perhaps the student is working on inference or pronoun reference or contextual clues--the context can be relevant to his other classes.

As reading teachers we are all too aware of the important role reading plays in the lives of our students--far too often a role of which they are unaware. As a reading teacher in an interdisciplinary program not only must the student be made aware of reading's relevance to his life, but the faculty must also be aware of their student's limitations and reading's relevancy in their own courses. When all are aware of the very interdisciplinary nature of reading, then the role of the reading teacher in an interdisciplinary program can be fully established.

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AN ENRICHMENT AND LEARNING SKILLS CENTER FOR STUDENT AID

Epictetus once stated that "Only the educated are free." Aristotle was asked how much educated men were superior to the uneducated: "As much", said he, "as the living are to the dead."

Foremost in the problem areas of education is the failure to teach reading in the course of the ongoing educative process. It is estimated that 20 percent of college freshmen have reading problems. Much of the dropout statistic can be traced to the inability to read effectively. It is generally conceded that the inability to read well lies at the base of most of the academic failures. In many of these cases readiness to read has been ignored.

Where does the readiness problem begin? Of course, it begins at home. Some children, whether among majority or minority groups, grow up in an atmosphere of commands and rarely have the opportunity to converse with members of the family. We can say that it is a problem that is observable from the first grade. I am aware that the question of readiness to read is no longer recognized or is in disrepute. However, it is doubtful that this latest turn in the teaching of reading will catch on very fast. Readiness in an ongoing need so long as new areas of study open up for the individual. When a teacher receives a class of first graders they are rarely ready for the language of the teacher or the rapid pace of the reading text. Rather, the first graders are in need of vocabulary development and the stabilization of visual acuity both of which require specific teaching. Many children arrive at the first grade experience with little to work from insofar as vocabulary is concerned and with limited knowledge of following directions.

Readiness takes several forms. For example, many black children live in the ghettos of large cities. Often the concepts of these children are not as one with the school program. Teachers must understand that the experiences of these children are not necessarily deficient, but are different. Teachers are largely sympathetic to the spanish speaking child because his entire language base is different but they are often less patient with the black child who already speaks English. Black children from the ghettos have often learned to shut out situations and elements of their environments because they are over stimulating. They then, very naturally, shut off elements of the classroom procedures because of their strangeness and thus fail to learn what we are teaching. A program of readiness to learn is clearly needed in thousands and thousands of cases each school year. We, as educators, must comply with meeting the needs of this vast group of students. Readiness to read is crucial to the problem of the teaching of reading. Children who come to school as "different" must be looked upon as coming from deviant backgrounds rather than subnormal. The attitudes of teachers often create very negative environments for any child who is widely different from the norm. This will include the overactive child, the non-participant, and the culturally different.

Ben Reifel analyzes cultural factors affecting social adjustment of Indians and emphasizes four principal differences between the American way of life and the traditional pattern of Indian life.

> 1. While the thinking of the dominant culture is future-oriented, Indians may be prone to live in the present – to take care of their needs today and let tomorrow take care of itself. While the thinking of the dominant culture has at its roots the idea of a "mastery over nature," the Indians believe in a "harmony with nature." Reifel emphasizes this difference in behavior: the dominant society lives in a state of anticipation, whereas Indians find the essence of living in the present.
> 2. Viewing time, in terms of hours and minutes, with subservience to clocks and calendars, is not important to the Indian way of life.
> 3. Saving as a means of achieving economic development has not been a part of Indian economic life. While competition is an integral part of the white man's behavior, cooperation is more characteristic of the Indian's.
> 4. Habituation to hard work, particularly for the men of the tribe, is not a part of the Indian system. (1957, p. 42)

Zintz has pointed out that the general behavior of a traditional Pueblo Indian Child may be contrasted with that of his Anglo teacher in the following ways:

The Pueblo Indian child is likely to be taught at home to value:	The Anglo teacher is almmost sure to place the highest value on:
1. Harmony with nature.	Mastery over nature.
2. Mythology. (The super-natural is feared, and sorcerers and	Scientific explanations for everything (Nothing happens contrary to

witches are thought to cause unexplained behavior.)	natural law.)
3. Present-time orientation.	Future-time orientation.
4. Working to satisfy present need.	Working to get ahead.
5. Time as infinite.	Efficient use of time. (Time can never be regained.)
6. Following the ways of the old people.	Climbing the ladder of success.
7. Cooperation.	Competition.
8. Anonymity.	Individuality.
9. Submissiveness.	Aggression (socially acceptable).
10. Humility.	Striving to win.
11. Sharing.	Saving for the future.

> With such a value system the Pueblo child is unlikely to be sensitive to some of these admonitions from his teacher: "Try to get through with the problem *first*"; "What you did yesterday wasn't quite good enough. Do a little better next time"; "Everyone must read well." (1962)

It is with these children that a positive and rich experience must be inaugurated that will enable them to function as a part of the class group. In the movement upward through the grades these children, with others, begin to fall by the way and to experience a plateau of learning. They are not given ample opportunity to integrate the initial learnings into their academic behavior and then are left by the way while the teacher presses onward. Too often these children comprise the so-called retarded group and they finally grow to accept the assumption that they can't read. It is at this point that students begin to believe that they are different and that they are of little worth. In a sense we are teaching them that they cannot learn to perform in the world of books and then they naturally become apathetic and discouraged. Some of these children, because of continual negative results from their efforts, accept that which to them is obvious. They cannot learn to read and hence the teacher looks on them as stupid. These are probably the most difficult students to revive. Their egos are damaged as well as their personal images. Positive expectations together with a sound and ongoing readiness program will do much to alleviate the abused self-image.

The foregoing comments are not intended to oversimplify the problem but rather to indicate that reading deficiencies at the university level begin long before the student presents himself at the university doors. No one level of education can be pointed to as solely responsible for the deficiencies. The students who have passed through academic doors from kindergarten (where we must be sure that no real academic materials are used) through secondary schools are shortchanged all along the way. Then the teachers of English in the secondary schools too often adopt a status attitude that results in failure to recognize that literature cannot be taught effectively when the students are unable to read the essays or other grade level materials. It has apparently been overlooked that reading can be taught more readily to mature students than to the very young. Question: Why are universities still refusing to require that teachers of the language arts at any level learn the fundamentals of teaching students to read? Every level along the academic path should assume some responsibility for the reading crisis. If teachers of English bypass the responsibility at the upper secondary levels, then specialists should be equipped with whatever they need in order to overcome this tremendous hurdle to the university.

The Academic Enrichment and Learning Skills Center at Indiana State University came into being primarily because of the problems of reading among the student body. It was first named The Learning Skills Center. It soon became apparent that his name in itself was a handicap. It only added to their feelings of inadequacy and humiliation. Hence, the name was changed and the Center was advertised in the school paper and in brochures as a Center for all students--even at the doctoral level. Indeed, speed reading and foreign languages (French , Spanish and German) particularly appeal to doctoral candidates.

There is another factor in the planning of the Center which was directed to the students with a fractured self-image and that is, the decor of the physical plant. It was designed to be attractive, quiet and testeful. Too many centers such as this one are poorly housed and the furnishings are battered hand-me-downs from other offices.

The low-key operation of the Center is another factor in its favor. Students who come for aid find it in programmed materials, teaching machines or personal help such as tutoring in special areas of difficulty. All rooms are airconditioned for comfort.

The Center is open to all registered students without charge except for students who register for a course of remedication. This course is a non-credit requirement for a special group and is known as the Freshman Opportunity Program. Students who graduate in the lowest 30 percent of their high school classes are registered during the spring semester and in the first and second summer sessions. The course, F.O.P. 100, is given during each of these periods and the students pay a fee of $40 for participation in the course. It is the equivalent of three semester hours but is non-credit. The students are permitted to enroll in other courses up to 12 semester hours in the spring and for three during each of the two 5-week summer sessions. The F.O.P. 100 course meets daily in the summer for ten weeks. The course emphasis is upon skill development in reading, how to study, how to take a test, how to write a term paper and work in special areas of need. Reading skills are taught in several ways. Two books are used for one-to-one work (*Breaking the Reading Barrier* and *Power and Speed in Reading*, Gilbert, 1959, 1962). Tapes and workbooks prepared at Indiana University are used for listening. Several machines for learning to read and for increasing the reading rate are used.

The first two courses in French, Spanish, and German are on tape and are widely used by doctoral students who are required to pass proficiency tests in a foreign language.

Tutoring is another service that is provided in the Center. There are four graduate assistants who are hired with attention to their major fields. Part time student help is hired who have major concentration in such areas as mathematics, English, psychology, geography, etc. The students also work as tutors. All part time students are required to become proficient in the use of all equipment in the Center.

There are two language laboratories in the Center, each having thirty positions. In other words, sixty persons may be seated at one time for one program or for a number of programs for groups or individuals.

The Academic Enrichment and Learning Skills Center was established through the use of University funds and is maintained as a student service center where every effort is made to make their visits rewarding. The constant use of the facility makes it clear that its existence is warranted and that it is fulfilling a very real need on this University Campus.

REFERENCES

Gilbert, D. W. *Breaking the reading barrier.* Englewood Cliffs: Prentice Hall, 1959.
Gilbert, D. W. *Power and speed in reading.* Englewood Cliffs: Prentice Hall, 1962.
Reifel, B. Cultural factors in social adjustment. *Indian Education*, April 1957, *298*
Zintz, M. V. Problems of classroom adjustment of indian children in public elementary schools in the southwest. *Science Education*, April 1962, *46*, 261-269.

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COMPENSATORY PROGRAMS FOR SPECIALLY ADMITTED FRESHMEN TO THE UNIVERSITY OF FLORIDA—1968-1971

Compensatory education programs in universities for freshmen or potential freshmen students have been limited in results. Grant concluded a study typical of manv others reported in the literature with "a pre-admission program makes a small and possibly dubious contribution to the post-high school education of high school graduates of low academic promise(1968, p. 324)" While such results can be most often attributed to deprived backgrounds, limited verbal skills, and experience, it is also evident that some programs do report significant and positive results. See for instance Bliesmer (1971) or Programs (1971)

This paper describes the evolution of programs for minority group freshmen from 1968-1971. Freshmen admitted under a 5 percent exemption quota to admission standards have been blacks with few exceptions. Prior to 1970, summer programs were without formal budgets. Although these students met in special sections and had access to support services, the survival results were poor. By the end of the fourth term of school after admission in the summers of 1968 and 1969, two-thirds to three-fourths of the students had left the University.

Beginning in the summer of 1970, a special program was funded by the State. Of the 191 students admitted, four terms later all but 13 are still enrolled, and seven of the drop-outs have transferred to other colleges. Students were originally selected in the score range 125-299 on the Florida Twelfth Grade Placement Test (n.d.) with a mean HSGPA of 2.3. Normal requirements for admission include a score of 300 on that test equivalent to the 60th percentile of all High School Senior Scores. Formal recruiting, visitation to high schools, and financial aid were provided. All were required to take 7 academic credits, enroll in the Reading and Study Skills Center (RSSC), and receive special tutoring. Courses carried more credit than normally in the summer term for these students. Problems were encountered in the requirement that all students attend the RSSC and tutoring sessions. No grade or credits were given, and student effort and motivation were reluctant at best. Students, in effect, were forced to attend under penalty of lowered course grades. Only 15 students voluntarily chose to continue at the RSSC after the end of the summer program. During the Fall term, students continued into the regular curriculum. Cumulative G.P.A. of the group of 2.01 at the end of the summer improved to 2.25 at the end of the winter term.

In the Spring of 1970, a sit-in in the President's office occurred. Several demands were presented to the President by the Black Student Union. In connection with this, property was destroyed and several students were arrested and suspended. In protest, 125 black students withdrew from the University, but virtually all returned to school in the Fall.

In the program begun in the summer of 1971, 122 students were admitted with scores ranging from 147-299 on the Florida Twelfth Grade Test and generally higher than the previous group. Ninety per cent of the students had total comprehension scores on the Diagnostic Reading Test (1947) below the 25th percentile of regularly admitted U.F. freshmen. Attendance at tutoring sessions was contingent on class grades, and a more flexible program was made available at the RSSC. The regular non-credit voluntary program was elected by 73 students of whom none were required to attend. Some faculty encouraged use of the Center as one of several self-improvement projects or in place of extra book assignments. Students were encouraged to keep logs of their experiences in the Center, later submitting these as project reports to course teachers. The cumulative G.P.A. of the group was 2.19 at the end of the summer, substantially above that of the previous summer. A credit load of twelve rather than seven credit hours was required of each student.

All students in the 1971 summer group were required to take the first term of a three-quarter course in Comprehensive Logic. This course considers decision making, rational processes, and behavioral science in the context of philosophy. The RSSC staff in cooperation with the regular faculty and using the text, *Systems for Study* (Raygor and Wark, 1970), taught study skills using the course content in a team teaching approach. Items from study skill discussions and the text were included on regular course examinations and in the course grades. Students at the end of the course rated their own improvement on nine topics relating to study habits. Most help was indicated in the area of Outlining and Underlining and in Exam Preparation. Least improvement was indicated in Time Scheduling and Concentration. In the opinion of the staff, these results on the items rated highest reflected the specificity of the topics while lowest rated items were concerned with more pervasive problems that trouble most students and which are less susceptible to change.

In summary, several statements emerge from experience and some data in these programs. In relation to the RSSC, five generalizations are apparent.

> A traditional group reading test is of limited value for either diagnosis, gain, or prediction.
>
> Requiring enrollment in the RSSC has a severe negative effect on student motivation and effort as compared to a voluntary program.
>
> University administrators tend to overestimate benefits of short term RSSC programs with such students.
>
> Pacers, gadgets, and other devices unfamiliar to students in their secondary school experience have high interest value in RSSC for those planning improvement programs.
>
> Few students elect to continue their programs into their second term though most report that they intend to do so.

Summary statements relating to the overall program and not related directly to the RSSC are as follows:

> Communication is a constant problem. Real and or imagined differences between these students and others and defensive behavior on the part of university staff has been somewhat improved by employment of black faculty and para-professional counselors.
>
> Recruiting, financial aid, and high school visitations are important in bringing students into the program.
>
> Students need more structure and direction than regularly admitted freshmen.
>
> A study skills component is of value in presentation of regular academic course material.
>
> Competency of the tutors is an important variable in their service to students.
>
> Course grading tends to be more lenient than for other students. Departments also need to evaluate whether tests are testing verbal skills rather than the content of their courses.
>
> Student employment to 15 hours per week does not adversely affect grades.
>
> Faculty expectations affect the quality of academic performance of the students. The tendency is to be more rigorous than when the program began.

In conclusion, an Upward Bound program for 60 secondary students was initiated in 1971. This program brought 60 students to live on campus for a six-week period and is intended to act as a feeder to the college programs described above. Early identification of college potential and appropriate programs to develop it may further enhance success rates of marginally admitted freshmen.

REFERENCES

Bliesmer, E. P. 1970 review of research on college-adult reading. In F. P. Greene (Ed.), *Reading: the right to participate.* National Reading Conference 20th Yearbook. Milwaukee: the Conference, 1971. Pp. 367-389. (See also reviews of research in previous National Reading Conference Yearbooks.)

Diagnostic Reading Tests. Mountain Home, N.C.: the Committee on Diagnostic Tests, 1947.

Florida State Wide Twelfth Grade Placement Tests. (Battery SRT.) Princeton: Educational Testing Service, n.d.

Grant, C. W. A pre-admission program for students with low academic promise. *Journal of College Student Personnel,* 1968, *9,* 320-324.

Programs for minority students. *NASULGC Newsletter* Aug. 19, 1971. Cited in A. Z. Smith (Ed.), *Education Recaps,* Educational Testing Service, 1971, *11,* (1), 6.

Raygor, A. L. & Wark, D. M. *Systems for study.* New York: McGraw-Hill, 1970.

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A CONTENT APPROACH TO READING SKILL DEVELOPMENT FOR SPECIAL ADMIT FRESHMEN IN A FOUR YEAR COLLEGE

Reading programs for special admit students have become standard offerings at many colleges in the United States. However, many of these courses have not been very successful in overcoming the reading problems of special students. One consistently hears about lack of attendance, poor motivation and low achievement when working in these programs. Furthermore, when these students are enrolled in credit courses, teachers report that they do not transfer many of the skills learned in their reading courses to the reading requirements of their regular courses.

Some schools have attempted to solve these problems by duplicating the regular course requirements within the reading improvement courses. But, this approach is generally impractical for two reasons: each reading improvement section includes students taking a variety of college courses; and, using credit course materials does not guarantee that the student will be any more interested in learning than when using traditional reading improvement materials.

For these reading programs to be successful, they must create a situation where students learn the skills because they are pragmatically useful to them for understanding content they want to learn, not because someone has said they had to learn skills. Edwards (1967) would add that these courses also consider and implement the psycho-social adjustments for special admit students in a coleege stiuation.

The reading program discussed and evaluated in this paper has been designed to consider relevance and the needs and interests of special admit students. It was developed over three semesters in the Urban University

Department at the New Brunswick campus of Rutgers University. While it is not the complete answer to the problems of working with this type of student, it is offered as an example of how a reading program might be developed around relevant content, needed skill development, and the needs and interests of these students.

READING IMPROVEMENT CURRICULUM

The goals behind the development of the reading improvement classes at Rutgers were similar to most special admit reading programs with regards to the development of the skills. However, a second dimension concerning the student himself was also added to the objectives. In this instance, we were interested in developing the student's confidence in his ability to perform in academic situations and to understand the relevance of a college education for him as an individual.

The instructional program that was developed to implement the above objectives contained both relevant content and skill development. The rationale was to create a situation where students would learn the skills because they were pragmaticlly useful to them for understanding content they wanted to learn, not because someone said they had to learn a set of skills.

Hence, the content used for teaching was inherently interesting to the student, and yet had a readability that enabled concentration on skill development. Content became more than simply a vehicle for learning, it became a motivation and energizing force in the curriculum because it incorporated the interests of the students.

At this point, we want to emphasize that skill development was still important and the same basic skills were developed in the present course as in any reading program. However, they were perceived as the link betrween interest and successful understanding of relevant material and not as a separate aspect to be learned. The purpose was to have the skills internalized, thus allowing transfer of these skills to other subjects so that the students might better obtain their own perosnal and academic goals.

To implement this type of curriculum, the twin areas of content and skills were developed simultaneously in the planning stages. However, for the purposes of illustration, the two areas will be discussed separately.

The first step was the isolation and listing of the skills necessary for college success. These included both reading and study skills. Then, each of these skills was analyzed in terms of its individual components and a sequence was planned that built upon the parts of already learned skills. The assumption was made that the more similar were the components of the separate skills, the easier would be the initial learning, internalization and transfer of these skills to novel reading and study situations.

The following skills were included in the course: reading for the main ideas and supporting details; noting sequence and development of main ideas and supporting details; developing flexibility in reading; underlining; summarizing; synthesis of several sources; critical reading; comparison and contrast of ideas; note taking; study reading techniques; preparation and taking of exams; development of research and term papers; and, organization for study. Two additional skills were also introduced through this course but were continued as separate entities once they were introduced: vocabulary development and rapid reading.

While the skill analyzation was being completed, the content for the course was also being selected. This selection was done by several methods. The first was ourknowledge gained over three semesters, of what types of materials and issues these students were interested inlearning. The second was the use of teaching assistants as resource people for suggesting relevant content.

Each article or book considered was analyzed for its interest level, the skills needed for understanding, and the skills that could be illustrated and taught through the material. In addition, the readability level for all the material was determined. Hence, a number of content materials were isolated that could be organizaed around skills in stepwise fashion and yet encourage the reading and transfer of these skills to novel reading situations.

The following materials illustrate the type of content used for instruction. Primary Content Materials: *Autobiography of Malcolm X (Malcolm X, 1966); To Kill a Black Man (Lomax, 1968); Post-Prison Writings and Speeches (Cleaver, 1969); Look Out Whitey (Lester, 1968); Hidden Persuaders (Packard, 1969); Growing Up Absurd (Goodman, 1965).*

Secondary content materials were articles selected for skill transference on the basis of: their similarity to a chosen analytical perspective (e.g., the identity problem, with respect to each of the primary materials); their increasing level of difficulty; and, their gradual shift in orientation from high interest content to more traditional college content.

The process of transfer was carefully considered in structuring the introduction of skills and content. It was necessary for us to establish that the process of learning and the application of the skills to college reading material was meaningful and useful to the students. This could not take place if the student did not perceive that this process allowed for his personal involvement in, and give him the opportunity for success within the learning situation. Hence, the skills and content used to teach them were carefully arranged to create a learning environment that insured a smooth transfer to new material.

Several teaching strands were developed to meet the variety of reading (and study skill) needs of our students. Basically, this involved tailoring the rate of learning to the abilities of the students to assimilate and transfer the skills to college reading situations. This resulted in some students completing the course sequence in one semester while others took both semesters.

The instructional program that was developed to implement the above concepts was essentially a spiral curriculum in both content and skill introduction. First, a skill was introduced and taught with interesting content. Then, it was applied to more difficult but still interesting content while another skill was introduced that built upon the components of the earlier skill. The purpose of building new skills on the components of already learned ones was to encourage transfer and application of the earlier skills to different reading and study situations.

The first series of lessons used in our course will serve to illustrate how skills and interesting content were unified for all strands. The remainder of the program followed the same basic pattern and only varied the skills taught and content used.

Students were introduced to the book *The Autobiography of Malcolm X* (1966) on the first day of class. The instructors also discussed reading for the main ideas and supporting details while the book was being introduced. Practice was given in this type of reading on the beginning pages of the first chapter. Then, the sutdents were asked to isolate the major ideas and supporting details in the first two chapters for homework.

The following day, the class discussed and diagrammed the development of the major themes in the first two chapters. This procedure was continued for several chapters and then one period was spent sequencing the major ideas developed by the author in these chapters. Later, the students were required to develop the major ideas from the first ten chapters and show how these events lead to Malcolm's acceptance of the Muslin faith. Reading flexibility was then introduced and the students were shown how to vary their reading approach to comprehend only the important points in relation to the main ideas and supporting details. Practice of this skill was done for the remainder of the book.

The *Autobiography of Malcolm X* was also used as the primary content material in the transference of the skill reading for main ideas to more traditional or secondary content materials. Secondary content materials were selected on the basis of: their similarity to a chosen perspective on the *Autobiography of Malcolm X*, (e.g., the problem of identity); their increasing level of difficulty; and, their gradual shift in orientation from high interest content to more traditional college content. The problem of identity was introduced through *Malcolm X* and concept formation about the problem was stimulated through discussion that focused on key issues such as the process of self formation, the role of the family, class, school, peer group, etc. The class then read an excerpt from Goodman's *Growing Up Absurd*, (1965) with the goal of analyzing Goodman's examination of the identity problem. The class then discussed the similarities and differences between the concepts formulated by the class about the identity problem through *Malcolm X* and those found in Goodman. The same process was repeated with an article by Cooley, *The Looking-Glass Self* (1962).

After the book and related articles were completed, the students were asked to bring in their own textbooks and individual help was given to reading in subject matter disciplines. The purpose was to illustrate how the skills already taught resulted in better understanding of the textbook materials. This entire process was repeated for each set of skills throughout the course.

Student progress was evaluated through class discussion, assignments and short tests. Any weak skill component identified for specific students was retaught and practiced through outside assignments and counseling with that student.

An additional feature of our program was the use of undergraduates as teaching assistants in our classes. They served as both instructors and tutors. Many of these students had also been instrumental in bringing our program to fruition. Basically, they were in the class to help us maintain relevancy from the student's position (by suggesting content and methods of instruction), and to help bridge the gap between talking about a skill and its internalization by the student. In most instances, these teaching assistants helped to plan specific lessons and participated directly in the instruction.

EVALUATION OF STUDENT PROGRESS

An objective evaluation of the success of the above program was attempted by comparing the pre and post test results of the comprehension section of the Nelson-Denny Reading Test. This comparison included only those students enrolled in the Reading Improvement Sections which followed this program. Students reading at or above college level were placed in advanced Study Skill sections and were not exposed to the program discussed in this report. Hence, they were not included in this analysis.

Because of the nature of the program, no control groups were available that included students similar to those enrolled in our Reading Improvement courses. Hence, the results were compared against a theoretical concept of an expected growth curve. The assumption was made that the normal amount of growth usually expected with developmental reading programs is usually one year's growth for every semester of concentrated work in reading. Specifically, we subtracted one year from each students gain scores and then used the *t* statistic for correlated means to evaluate whether our program resulted in bettrr than expected growth.

The test results showed that students in both strands of the Reading Improvement Sections improved substantially between pre and post testing on the Nelson-Denny Test. This improvement averaged over 2-1/2 years for the Reading Improvement I group, which was essentially the slowest moving strand, and over three years for the Reading Improvement II groups. Both increases were significant when tested against the theoretical concept discussed earlier. Pre and post test mean scores have been reported in Table 1.

The data was also examined by computing the percentage of student's testing at each grade level on both the pre and post test. This comparison showed that the majority of students on the pre test scored at or below ninth grade. On the post test, there was a shift upward that resulted in

Table 1

Grade Level Scores on Pre and Post Test
Comprehension Section of the Nelson Denny Reading Test

Reading Improvement I
Section N=7

Pre test		Post test			
Mean	SD	Mean	SD	Gain	t-score
6.26	1.73	8.95	1.76	2.69	2.46*

Reading Improvement II
Sections N=49

Pre test		Post test			
Mean	SD	Mean	SD	Gain	t-score
9.23	2.00	12.34	1.76	3.11	12.44**

$^{*}\ p < .02$

$^{**}\ p < .001$

the majority of students being at or above tenth grade. The interesting feature here was that 31 % of the students moved to the reading level of entering college freshmen while on the pre test no one scored in those categories for these groups. The percentage of students reading at each grade is reported in Table 2.

Discussion

The growth scores of the students indicate that the program reported in this paper improves special admit student's reading ability. This growth was significantly more than normally expected for a semester's course in Reading Improvement.

Attendance and motivation of the students has also been consistently good throughout the course. We feel this has been caused by our procedure of using relevant materials and issues to teach the skills, and consideration of the students perceptions of the learning situation when developing the

Table 2

Percentage of Students Testing at Each Grade Level
on Pre and Post Comprehension Section of
the Nelson Denny Reading Test
N = 56

Tests	Grade Levels							
	Below 8th	8th	9th	10th	11th	12th	13th	13th+
Pre test	33%	12%	35%	11%		9%		
Post test	4%	10%	4%	24%	4%	23%	15%	16%

course sequence. The students are interested in and can see the value of what is occuring inside the classroom.

Another possible reason for the success of our program may have been that it occurred at a time when the students were moving from one educational experience to another. Bloom (1964) indicates in his report on human characteristics that for a student to effect a change in his learning style, the best time to cause this change after the growth curve has reached the optimum development is when educational experiences are radically altered. This type of situation existed in our program because the students were entering college for the first time. Hence, our course, which was radically different from their reading experiences in high school, occurred at a time when they were experiencing a totally new learning situation.

However, it must be stated that this course is not offered as a panacea for all problems in this area. We still have some students that are not attending regularly and do not appear motivated to learn the skills necessary for success in college. But, their number is far less than before and the majority of the students that have remained with the program show more enthusiasm and willingness to learn than they did with the reading program we used before.

Of course, the final evaluation of this program will lie in the area of academic success; how well the students are succeding with the reading and study assignments in their other courses. At present, the students do appear to be meeting with success in completing and understanding the assigned readings for their college courses. Furthermore, when problems are encountered the students are attempting to solve them rather than

withdrawing. Finally, less students are dropping courses or failing to attend classes.

REFERENCES

Bloom, B. S. *Stability and Change in Human Characteristics*. New York: Wiley & Sons, 1964.

Cleaver, E. *Post-Prison Speeches and Writings*. New York: Ramparts, 1969.

Cooley, C. H. "The Looking Glass Self," *Human Nature and the Social Order*. New York: Free Press, 1922.

Edwards, T. J. "Cultural Deprivation: Our American Legacy," *Journal of Reading*. 1967, *10*, 10-13.

Goodman, P. *Growing Up Absurd*. New York: Random House, 1965.

Lester, J. *Look Out Whitey*. New York: Grove Press, 1968.

Lomax, L. *To Kill A Black Man*. Los Angeles, Cal: Holloway House, 1968.

Malcolm X. *The Autobiography of Malcolm X*. New York: Grove Press, 1966.

Packard, V. *The Hidden Persuaders*. New York: Pocket Books, 1969.

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READING INTERESTS OF BLACK AND WHITE STUDENTS IN TWO SEPARATE READING LABORATORIES

A major concern of educators is to learn more about the problems, mores and characteristics of the culturally or ethnically different segments of our society. This group includes the Blacks which constitute the largest minority population in the United States. What are the reading interests of certain members of this diverse group, and do they differ markedly from those of the same educational status of the white world?

REVIEW OF LITERATURE

Over four decades ago, Angel (1928) reported the results of a study on college life in America which included a survey of students' recreational reading at the University of Michigan. Students were asked to rank a given set of magazines in relation to the amount of time they spent on them. Light fiction ranked high among both men and women.

In 1929, Fagin polled students in two classes at Johns Hopkins University to ascertain their faviorite periodicals. According to Fagin, stated preferences clearly revealed that American College students were interested in current events, problems, and conditions that determine the pattern of their existence; rather than in the "long-winded, pald essay."

Brown (1929) conducted two investigations into the recreational reading of students. First, the amount of time spent by students on reading books, magazines, and newspapers, His results indicated the most time was spent on newspapers, then magazines, with least time devoted to books. Brown's second study looked at five types of matrial. Results indicated that the students read, from most to least: fiction, biography, essay, poetry, and drama.

In 1941 Daniel reported the Social Science reading interests and needs of Negro Freshmen at Howard University through the use of a checklist administered to them in the Fall of 1929 and 1940. Tabulation of the results showed: that Negro students preferred above all to read books relating to their race; that sociological topics presented the highest level of interest in books about family, income, marriage relations, and problems of youth; books on economic topics were least desirable for voluntary reading; and that the results indicated clearly that they did not believe that race constituted a basis for differentiating the general social science reading materials made available to Negro stuents as compared to whites.

Watson (1948) studied the reading interests of Negro students at North Carolina State College and found that although the reading record of freshmen was very low, there was a constant increase in the borrower's lists at the upper levels. For example, fifty-two upper classmen indicated that they had read 412 fiction books and 395 non-fiction ones during the year. Watson's student opionion survey, however, revealed that a lack of more effective library use was attributed to the great need of instruction in using the library. Watson surmised that since many Negro students enter college without ever seeing a card catalog or having access to library use, the task of finding a book becomes a chore, and reading is seldom a pleasure.

During 1949 student-Veteran's reading preferences in communication media as gathered two years earlier were reported by Weingarten of Wright Junior College in Chicago, What sections of newspapers, what periodicals, what books they were reading, and what kinds of motion pictures and radio programs they preferred were among the questions asked of the 500 Veterans. Their overall preferences were similar to those mentioned previously, indicating strong interest in the realities of life--in this instance, issues of a post war world and the problems of individual adjustment and existence within it. Many of the 224 magazine choices were related to vocational and avocational interests with 189 in scientific areas and 70 in businesses. However, 17 percent of the men listed not one book title. Weingarten(1949) suggests that it is to these non-reading students that the college has the greatest obligation: "As realists in teaching, we should help them find what they are seeking by arranging a functional reading program related to their interests and needs as part of the program of general education which we offer them."

In 1952 an instrument consisting of 41 questions was administered to 1212 freshmen and seniors in nine colleges and universities by Abraham of Roosevelt College in an effort to determine their reading choices and differences in reading patterns of various races, among other purposes. The largest number of students questioned at five of the nine schools - all white - had read no outside books during the preceding two months. However, those who did read listed the following writers as their favirites: Ernest Hemingway, Edgar Allen Poe, John Steinbeck, Walt Whitman, Loyd Douglas, Pearl Buck, Samuel Clemens, O'Henry, and Frank Yerby. At the one College where all of the students were Negroes, nine Negro writers were listed as favirites: Frank Yerby, Richard Wright, Langston Hughes, Charles S. Johnson, Ann Petry, Williard Motley, Walter White, Horace Cayton, and St. Clair Drake. In addition, the Pittsburg Courier and Chicago Defender were listed as choice newspapers for this group.

The most recently read and liked books by Black and white alike were: Cheaper by the Dozen, Gone With the Wind, Fountainhead, The Foxes of Harrow, Peace of Mind, The Egg and I, 1984, For Whom the Bells Toll, Grapes of Wrath, The Good Earth, Crime and Punishment, and The Count of Monte Cristo. Abraham (1952) inferred that if this listing were genuine, all youth, Black and white, were seen as adhering "to the imitative quality of aspiring to reading interests and habits of their leaders--college teachers." In the main, he found few significant dissimilarities in the racial aspect of the study, and even then, the matter may be ascribed more to a function of the socio-economic level than of race.

In his discourse on group identity and book interest of college students, Powell (1952) of the Brooklyn Public Library Staff asserted that interest in good reading was effected by both the background experiences of the individual and his ability to manipulate or master the skill of the activity. He discovered in the reading interests of Negro students indications of a "search not only for problem solutions found in racial literature but for revenge against the oppressor, and for evidence to justify their hatred and prejudice as well as for the establishment of their defense (p. 538)." Powell further expressed the idea that books on vocations, so few of which are available to future Negro citizens, held no attraction for them.

Adams (1969) investigated the reading interests of 300 students in Preparatory Classes at two UNRWA schools in Saida, Lebanon and at the Siblin Teachers Training Institute nearby. She had observed the disdain for newspaper and magazine reading in the library by certain administrators of UNRWA and school officials, and was currious about the amount of time the students spent in this activity, as well as the kinds of reading undertaken in books during their spare time. Her study revealed that the preparatory students spent from one-half hour to three hours of time daily in reading, while the teacher trainees spent from none to five hours daily in reading. Books on politics dominated all others, followed by history, biography, and religion. Preferences of these students seemed to be exemplified in books they considered to offer solace or a better life for them as most of their lives were beset with the pangs of war and poverty.

Gottsdankert and Pidgeon (1969) examined the results of a survey sent to 300 students of high scholastic aptitude at the University of California at Santa Barbara and reached the following conclusion:

> Clearly, the major concern of the students was a personal quest for meaning, with existential thought predominating (Camus, Sartre, Hesse, and the current interpretation of Dostoevsky). The heart of the list might be interpreted as a vignette of the hippy orientation—

> anti-materialism, dependence on love as a modus operandi, sympathy for minority groups, subjectivism, enjoyment of fantasy, and emphasis on the immediacy of experience. (P. 381)

Despite the fairly homogeneous backgrounds, most of the students being white, middle-class southern Californians, little agreement as to significant reading experience was shown: fiction was the most popular kind of reading with these students; social and political reading came next; with religion third.

INTEREST SURVEY

The present report involves slightly more than 1000 Black and white college students in two separate reading laboratories. The subjects were approximately equal in number. At Northern Illinois University (NIU), a predominantly white institution, 521 information forms were included, while at Florida Agricultural and Mechanizal University (FAMU), a predominantly Black institution, a total of 501 were examined. Although at each of the two reading laboratories many of the students continued to enroll throughout the year, only one survey form was included from any one student.

In each of the reading laboratories, the total number of Freshmen exceeded that of the total combined numbers of upperclassmen. In addition, students in both Black and white laboratories were, for the most part, in the 18 - 26 year age range. Fewer than ten veterans were enrolled in each laboratory. The number of males exceeded the number of females.

Some dissimilarity in procedures for procuring enrollees in the two programs was shown. At NIU, all students entered the program on a voluntary basis even though Freshmen and transfer students who score low on the College Entrance Test were advised by the Counselors to attend reading classes. There was also an occasional upperclassman who, because of his probationary status, was strongly urged by the Personnel Department to attend. On the other hand, at FAMU, there were few volunteers indeed! These were mainly upperclassmen needing extra credits for graduation, or generally desiring to improve their reading skills. Freshmen students who scored low on the English section of the state wide high school testing program were automatically placed in reading classes. The program was clearly seen as a stigma for them.

Dissimilarity in course credit was also apparent at the two schools: No credit was offered at NIU; at FAMU, credit ranged from one to three hours depending on the specific areas of skill building one chose to enroll in. Attitudes of Freshmen at FAMU appeared less positive than at NIU. This was attributed to the enrollment procedures. Many students felt captured in the Basic Course and complained that they did not need reading and that even if they did, one hour of credit was insufficient for the amount of work and time spent in the laboratory. Much communication and comparing of papers was evident. Consequently, many were difficult to motivate. Beyond the Basic Course, however, students who enrolled in reading courses at FAMU showed a greater interest in trying to improve their skills in all areas.

At NIU, students appeared more enthusiastic about the program, showed an eagerness to try new and challenging materials, and manifested an aura of aloneness or aloofness one from the other. Only occasionlly would there be evidence of close friends enrolled in the same class. Perhaps it may be said that size of the university was a factor in this. NIU has an enrollment exceeding 25,000. It was difficult for students from a cross-section of the student population not to be impersonal. FAMU, with an enrollment of 4000 seemed, of necessity, more personal and more together.

During the academic years of 1969-70 and 1970-71, this writer was Chairman of the Reading Improvement Programs of NIU and of FAMU respectively. Thus, she was concerned with the reading interests of students entering the program under her supervision. One activity asked of all enrollees was to list a book and its author that had been read during the past few months. Table 1 presents the 25 most frequently listed books by white students at NIU and Black students at FAMU.

Table 1

The 25 Most Frequently Read Books

White Students (N=521), 1969-70		Black Students (N=501), 1970-71	
Title	Frequency	Title	Frequency
Airport	60	Manchild in the Promised Land •	49
Coffee, Tea, or Me	44	Soul on Ice •	40
Catch-22 •	39	Autobiography of Malcolm X •	40
Soul on Ice •	36	Black Boy	40
Space Odessey 2001	34	Die Nigger Die	34
To Sir With Love •	31	Five Smooth Stones •	31
The Art of Loving	30	Yes I Can	31
Gone With the Wind	24	The Learning Tree	28
Five Smooth Stones •	22	The Godfathers •	27
Tom Jones	21	Love Story	20
In Cold Blood	19	Blues for Mr. Charlie	13
Brave New World	18	Black Like Me	13
The Godfathers •	18	Old Man of the Sea	13
Autobiography of Malcolm X •	17	Black Power: The Politics of Liberation	12
Invisible Man	13	Nobody Knows My Name	12
My Life With JFK	13	A Raisin in the Sun	6
Crime and Punishment	9	Catch-22 •	5
Manchild in the Promised Land •	6	The Love Machine	3
Of Mice and Men	5	Freedom-When?	3
Three Faces of Eve	4	A Patch of Blue	3
Lord of the Flies	4	Valley of the Dolls	3
Nigger	3	The Bible	3
The Last Hurrah	2	I Always Wanted to Be Somebody	2
Anna Karenina	2	To Sir With Love •	2
The Money Game	2	Black Rage	2

• Books on both lists

In addition to the titles listed in Table 1, 45 whites and 66 Blacks listed single titles. The reader will note that for the most part, the white top titles dealt with real problems faced by people and with romance. Comments from NIU English teachers tend to refute the idea that Tom Jones and Anna Karenina were read as a leisure time activity as they frequently appear on lists of required reading. It is clear that this group chose fiction over non-fiction. However, much of the fiction listed is based on fact, autobiographical and otherwise.

As can be seen, the Black list is predominantly racial in nature and follows the trend indicated by Powell. In addition, a search for identity, a father or mother role model, may be seen in *The autobiography of Malcolm X*, (Malcolm X, 1966), *Black Boy* (Wright, 1945) *Yes I can*, (Davis, 1965), and *I always wanted to be somebody* (Gibson, 1958) (written by Blacks who have achieved esteem in both the Black and white world.) Adams (1971) concurs with the notion that Negro youth of lower and middle classes are inspired with hope by Blacks who have surmounted the handicaps of race and poverty to achieve some distinction; and therefore develop confidence in their own possibilities.

It may also be noted that Blacks are interested in books with themes of love and romance. In addition, Blacks are interested in religion and current problems as seen in The Godfathers and Valley of the Dolls.

The seven books common to both lists represent approximately one-third of the top twenty-five. It is significant to observe both Black and white youth reaching across color lines to find pleasure in such a leisure time pursuit as reading, more especilaly at a time wrought with stresses and strains such as the present.

SUMMARY

An examination of the research on reading interests of Black and white students at the college level indicated that these students are influenced in their reading by four fundamental factors: sociological and educational background; their own self-image; their actual personal reading interests; and the educational institutions which promote or inhibit good book habits and interests.

The college youths of today are influenced by such variables as the results of two major wars, the continuing cold war between East and West, Vietnam, Cambodia, television, interplanetary travel, factors bearing on racial dichotomies, student unrest, political strategies, and how to make a living. They are eager to read current events to keep abreast of the world and its numerous problems, and at the same time engage in flights into fantasy for escaping, even momentarily, their own personal problems.

Sex, intelligence, and educational background are constants, more or less, and do have some influence on book and magazine preferences. It appears that although young Blacks tend to read more about Blacks than anyone else, these students have many of the same interests and concerns with current problems as do white students. It is true that the experiences

of many Blacks are limited; yet, with the proper guidance and available materials, they can become prolific readers, and perhaps one day it will be easy to discover that their reading habits and interests are not so different after all.

REFERENCES

Abraham, W. The reading choices of college students. *Journal of Educational Research*, Feb. 1952, *45*, 459-465.

Adams, E. K. The reading interests of UNRWA students in Lebanon. In G. B. Schick and M. M. May (Eds.), *The Psychology of reading behavior*. National Reading Conference 18th Yearbook. Milwaukee: the Conference, 1969. Pp. 161-167.

Adams, E. K. *Tall black texans: men of courage*. Dubuque: Kendall / Hunt Publishers, 1971.

Angell, R. C. *The campus*. New York: Appleton, 1928.

Brown, J. I. What do college students read? *College English*, Oct. 1939, *1*, 262-263.

Daniel, W. G. *Reading interests and needs of negro college freshmen*. New York: Columbia University Press, 1941.

Davis, S. *Yes I can*. New York: Farrar, Strauss and Groux, 1965.

Fagin, N. B. Students read. *English Journal*, Jan. 1939, *28*, 62.

Gibson, A. *I always wanted to be somebody*. New York: Harper Row, 1958.

Gottsdankert, J., & Pidgeon, E. A. Current reading tastes of young adults. *Journal of Higher Education*, May 1969, *40*, 381-382, 385.

Powell, A. S. Group identity and book interests of college students. *Journal of Negro Education*, Winter 1952, *21*, 535-540.

Watson, P. R. Reading among students at North Carolina State College. *Library Service Review*, Nov. 1948, *1*, 10-15.

Weingarten, S. Student veterans' reading preferences. *Journal of Higher Education*, June 1949, *22* , 299-302, 338.

Wright, R. *Black boy*. New York: Harper, 1945.

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INSTRUCTIONAL APPROACHES AND MATERIALS FOR ETHNICALLY DIFFERENT STUDENTS

The teaching of reading has been researched over a long period of time. Modern approaches to reading are the results of studies in the fields of reading, linguistics, psychology of learning, child development, and numerous other areas. Methods have been modified after empirical tryout throughout the country. It has been found that no one specific method is suited to all learners, to all teachers, and to all reading situations. Probably in no teaching-learning situation in the real world has any method been used in its pure form to the exclusion of others.

Until the 1950's the format of methods and materials used in reading instruction were essentially for the primary grades. The developmental programs at the later levels were adaptations of the primary level. In addition, special help for the disabled and accelerated readers were the application of reading skills to the content areas and the use of the library.

Wittick (1968) suggests four categories for the methods and materials in use at the primary level: the stronger decoding programs; individualization of instruction; programs with new subject matter content and illustrations; and extensions of technology.

According to Huus (1968), the new developments in approaches and materials at the later levels are still more in the nature of adaptation than radical departures from previous practice. The changes that have occurred fall into three categories: those which extend or refine the teaching of basic skills; those which lead to higher levels of thought; and those which adapt instruction to individual learning.

Every instructor of reading should become familar with different approaches and the philosophies upon which each is based so that he may make adjsutments and adaptations of certain approaches or select aspects of approaches which seem most applicable for his classroom curriculum in meeting individual or group needs.

The proliferation of teaching materials today, undoubtedly, holds some promise for teaching reading. Those materials may be charts, tradebooks, basal readers, graphs, machines, kits, tapes, recordings, games, films, filmstrips, or materials or content from any subject aera. Breakthroughs in reading materials and approaches, for that matter, have been tremendous. The social problems of society have caused researchers and writers alike to place on the market approaches and materials designed especially for the ethnically different student. Such materials do reveal breakthroughs--but are the materials viable? Do they provide the challenges that students will encounter in *this* society? Do they prepare the students for the real world? Do they compound an already existing problem?

It is felt that approaches and materials for teaching reading should be developed as a means of teaching learners to learn to read. It is believed that approaches and materials should be developed on sound philosophy and research that will provide for learning by any student who is teachable. How effective the process will be depends upon the skills of the teacher guiding the learning experience.

Several approaches and materials are available because variety is essential to living, essential to learning, essential to being. Though reading specialists say there is no one best approach, it is believed that there is a best approach for each student or a particular group of students. Each student possesses abilities and skills with which he confronts his environment, and it becomes the reading specialist's task to match the appropriate approach and materials with the students' skills and abilities.

In the wake of our new concern with the problems of the ehtnically different students has come the conviction on the part of many that the most powerful weapon for upgrading these students' aspirations and expectations is their knowing how to read--their knowing how to think, and their being exposed to education that provides a panorama of meaningful experiences.

Classroom teachers, realizing the individuality of each student, the commonality of student groups, and the pressing needs, have initiated trial-and-error approaches in an attempt to match approach, material, skill, and ability. This type of approach, above all, allows teachers to explore, study, and apply the results of the trial-and-error effort to the teaching-learning situation.

The influx of large numbers of students to college today makes the teaching of reading at the college level essential. Many of the ethnically different students have found reading at this level a frustrating experience devoid of pleasure, and have approached their work with little satisfaction in using a textbook as a source of informtion and knowledge.

Is there a best approach? Is there an ideal piece of material?

Twenty-two college freshmen were enrolled in a developmental reading course. The regular routine for the first class meeting was carried out. Twenty-two freshmen came, twenty-two freshmen left. There were no overt signs of enthusiasm on the part of any student. After class dismissal, the questions began to flow relative to what should be taught, methods of stimulation, and types of involvement. After observing and probing for dialogue with the class members during class periods, it was concluded that a readiness period should be provided. Materials nad equipment of different types were displayed in the reading lab. Students were encouraged to explore, share, and feel free to talk with one another. This allowed the instructor to observe and make analyses of student behavior, level of interaction, materials that captured their interest, and the students with whom each spoke more freely.

From these observations and analyses, it was concluded that several students possessed a low level of verbal facility and did not feel confident when speaking in a group situation. Some did not understand many of the sentences that were presented in some of the materials they were thumbing through, others could not pronounce many of the common words, while still others showed no interest in the learning evnironment at all.

Following such experiences, it was decided that a trial-and-error approach should be used with these college freshmen. The Modified Directed Reading Approach was selected with its five basic steps: Readiness, Silent Reading, Oral Reading, Skill Development, and Follow-up Activities. Using these five steps (which were developed for teaching primary reading with the students provided for small group participation, opportunities to interact with students performing at or near the same level, and opportunities to learn the basic reading skills. It also gave the instructor an index of the input and output of the students. The materials used to initiate the Directed Reading Approach were *Be a better reader*, Books III and IV (Smith, 1971) and *30 Days to a More Powerful Vocabulary* (Funk & Lewis, 1942).

The class, which met twice each week, was divided into sections, so as to include the Directed Reading Approach and the vocabulary activity. After three or four class meetings of using this approach and these materials, students began to show interest and progress. They started talking, sharing, seeking the services of the reading center, writing short papers independently, and using the new vocabulary in formal and informal situations. The students had gained insight into their problems. They possessed knowledge and skills about reading which facilitated their work in the other subject areas. They possessed a growing vocabulary which was highly beneficial in writing papers, taking examinations, and just talking.

The students acquired a new positive self-attitude. Their personalities became effervescent and the classroom setting was alive. Learning was obvious and prevalent.

As we look back in retrospection: Gerrard became the editor of the BULLDOG, the college yearbook, and is now an outstanding teacher in

South Carolina; Johnny Carey became an outstanding basketball player; Sam became a college dietician; Stanley became a student tutor for the Department of Communications and is currently a graduate student at the University of Virginia.

This trial-and-error approach indicates that in spite of the many approaches and materials, there is a one best approach for teaching reading. However, this is contingent upon the ingeneous ability of the teacher to match it with student skill, ability, and need. Approaches and materials that are philosophically sound and research based are adaptable to any student who is teachable no matter how ethnically different.

REFERENCES

Funk, W., & Lewis, N. *30 days to a more powerful vocabulary*. New York: Pocket Books, 1942.

Huus, H. Innovations in reading instruction: at later levels. In H. M. Robinson (Ed.), *Innovations and change in reading instruction*. National Society for the Study of Education 67th Yearbook. Chicago: University of Chicago Press, 1968. Pp. 126-158.

Smith, N. B. *Be a better reader*. Books III & IV. (3rd rev.) Englewood Cliffs: Prentice-Hall, 1971.

Wittick, M. L. Innovations in reading instruction: for beginners. In H. M. Robinson (Ed.), *Innovation and change in reading instruction*. National Society for the Study of Education 67th Yearbook. Chicago: University of Chicago Press, 1968. Pp. 72-125.

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REALITIES AND FALLACIES OF READING INSTRUCTION FOR ETHNICALLY DIFFERENT STUDENTS: COGNITIVE AND AFFECTIVE CONCERNS

Probably there is no issue in American education which is being discussed more today than the issue of educating the ethnically different student. I think that one of the problems of educating the ethnically different student is that everyone is doing more talking than anything else.

The major emphasis in this paper is cognitive and affective concerns of the ethnically different reader. As one surveys the literature, various synonyms for the ethnically different are found: culturally disadvantaged, the disadvantaged, culturally deprived, the educationally disadvantaged, the socially rejected, the socially deprived, the culturally different, the chronically poor, the poverty stricken, educationally disoriented, underprivileged, slum children, lower socio-economic group, disaffected, and lower class. Generally, most, if not all the studies containing these labels are concerned with minority group children - Blacks, American Indians, Mexican Americans and Puerto Ricans. Some try to find more euphemistic synonyms than others. In this presentation ethnically different and culturally disadvantaged are used synonymously.

What are the factors which are alleged to be determinants of reading retardation of ethnically different students? Among them are over-crowded housing, deteriorated housing, poor hygienic conditions in the environment, the lack of education on the part of their parents, restricted language usage in the home, parent's failure to read to children, the parents' inability to provide sufficient stimulation for the child, the absence of a father figure, the absence of books, crayons, pencils, and paper in the home, broken homes, slum conditions, a lack of success in the academic situation, and lack of the verbal and abstract behavior patterns that are required for successful work in the public schools and normal functioning in our society.

Numerous theories and explanations have been offered as to why disadvantaged children do poorly in reading. Havighurst (1965) identifies deficits in certain social experiences in the family. He says, disadvantaged children have not had:

> 1. A family environment which: sets an example of reading; provides a variety of toys and play materials with colors, sizes, and objects that challenge his ingenuity to use both his hands and his mind.
> 2. A family conversational experience which answers his questions and encourages him to ask questions; extends his vocabulary with new words and with adjectives and adverbs; gives him a right and a need to stand up for and to explain his point of view on the world. (p. 455)

Gordon (1967) avers that minority ethnic groups, whether Black, Puerto Rican, Mexican American or American Indian, represent the disadvantaged who come to school with a culture which has failed to provide them with the experiences normal to the children the schools are accustomed to teaching. In addition:

> They and their parents are in varying degrees sufficiently alienated from the professed values and mores of the broader community to distort, if not preclude, productive involvement in school and community affairs. It is not surprising then that the children of these families show high rates of social retardation, and mental subnormality.
>
> Also, ... these are the people who are handicapped by depressed social and economic status and who, in too many instances, are further handicapped by ethnic and cultural caste status. (p. 1)

Deutsch (1969) has studied children who are handicapped by a lack of family conversations, playthings, and other experiences on which he says the developing mind must feed. He found them to have inferior auditory discrimination, inferior visual discrimination, inferior judgment concerning time, number and other basic concepts. He found that this inferiority is not due to physical defects of eyes and ears and brain, but is due to inferior habits of hearing and seeing and thinking. Consequently, the assumption is that the family environment of these children did not teach them to pay attention to what was being said around them, or to the visual scene. Then, when they came to school, their school performance suffered because they had not learned to listen to the teacher and other important people or to see the things they are shown in school.

This analysis is based on the proposition that family experience is the dominant factor in the child's cognitive development and that preschool experience in the family makes the greatest difference between a child who comes to the first grade ready to read and a child of equal native endowment who enters the first grade quite unready to read.

Combining attitude and aptitude deficits into a hypothetical profile of the ethnically different or disadvantaged student one gets a picture somewhat like this:

> The disadvantaged pupil is noticeably limited in motivation to achieve; the disadvantaged pupil is unable to postpone immediate gratification for more distant goals; the disadvantaged pupil experiences difficulty in persisting toward the more distant goals; the disadvantaged pupil is glaringly weak in language development and verbalization skills; the disadvantaged pupil is sadly lacking in concept formation; the disadvantaged pupil's lack of aggressiveness in some instances reaches that stage of passivity which is detrimental to his school progress (Codwell, 1967, p. 326).

The majority of studies concerned with characteristics and / or definitions of the disadvantaged seem to be rather subjective and vague. Specifically, such studies seem to indicate that the term disadvantaged refers to children who: live in a noisy, over-crowded, disorganized home environment; belong to a minority ethnic group; reside in a depressed geographic location; are victims of poverty or low socio-economic status; exhibit noticeable deficiences in language, cognition, and intelligence; manifest inadequate perceptual styles and patterns of intellectual function for academic efficiency; possess little or no motivation or aspiration for a formal education; all of the preceding; any single one of the preceding factors; or any combination of them.

In our present state of ignorance about how best to teach children who are spread over an enormously wide range of abilities and proclivities and diverse cultural backgrounds, we can hardly *justify* many of the findings documented in innumerable studies.

There is a variety of explanations for these persistent findings. Historically, among the earliest explanations was that the poor performance of Negro children was due to their inherent racial inferiority. At the end of the last century and the beginning of the twentieth century no one had any real question or doubt as to why Negro youngsters seemed to be performing below the level of white youngsters. It was the inherent inferiority of the groups from which they came. This interpretation seemed to be the dominant interpretation up until about the second or third decade of the twentieth century, even among social scientists and educators. (See Clark, 1968, for further development of this theme.)

More recently it has become fashionable to attempt to explain the persistent fact of the academic retardation of Negro children in terms of general environmental disabilities. Generally, proponents of the cumulative deficit theories do not talk of racial differences; they talk primarily in terms of environmental differences. These explanations tend to emphasize such environmental conditions as the total pattern of racial discrimination and segregation which deprives the ability of these children to learn. They talk about economic and job discrimination, substandard housing, poor nutrition, parental apathy, and lack of stimulation which generally reflect lack of educational opportunities for the parents themselves.

The most recent version of the environmental approach is cultural deprivation. Generally, those students using this term as well as others mentioned previously, are concerned with minority-group children, lower-status children, and lower socioeconomic-status children.

Some studies point to rather specific aspects of the environment. These usually pertain to the home, such as lack of education on the part of the parents and inability of the parents to provide sufficient stimulation for the child.

Specific conditions in the family have been offered as explanations for the inability of the child to learn to read in the primary grades, such as either inability of a parent to stimulate the verbal ability of the child by the inadequacy of the parents; or the fact that lower-class parents do not speak to their children; their children therefore are not stimulated to speak in the way in which teachers would like them to; or even that there is too much talking in the home. There is the explanation in some studies that minority-group children do not learn to read or pay attention in the classroom because there is so much noise in the culturally deprived home that children have to protect themselves by cutting off their auditory sensory functions; they automatically block out noise. This behavior starts in the home and continues in the classroom.

Some of the studies emphasize the absence of things; not just stimulation, overstimulation, or understimulation, but the absence of specific things such as pencils, books, and paper. In some instances, no-books-in-the-house is offered as an explanation for reading retardation or inability to read on the part of minority-group children.

The picture of deprivation given by these theories is one of total, stark, bleak deprivation. The degree of deprivation in urban working-class Negro homes is so stark that the child has absolutely no sensory stimulation whatsoever and no opportunity to go out and mark up walls or anything of that sort. Clark (1968) suggests that since middle-class children have the chalk, crayons, pencils and other writing materials, the four-letter words on walls and billboards must be a product of middle-class children.

In 1930, Otto Klineberg's research resulted in a serious re-examination and a revision of this inherent racial-inferiority explanation. Recently, Jensen (1969) revived the explanation only to maximize differences between blacks and whites and maximize the possibility that differences in cognition (I Q and scholastic achievement) are attributable to hereditary factors. The main points of Jensen's article are summarized below.

1. Negro scores averaging about 15 points below the white average on I Q tests must be taken seriously as evidence of genetic differences between the two races in learning patterns.
2. Research suggests that such a difference would tend to work against Negroes and against the disadvantaged generally when it comes to cognitive learning - abstract reasoning - which forms the basis for intelligence measurements and for the higher

> mental skills.
>
> 3. Conversely, Negroes and other disadvantaged children tend to do well in tasks involving rote learning - memorizing mainly through repetition and these aptitudes can be used to help raise their scholastic achievement and job potential.
> 4. Unfortunately, big programs of compensatory education, now costing taxpayers hundreds of millions of dollars a year, are doomed to failure as long as they picture old approaches stressing "cognitive" learning. (U.S. News, 1969)

In response to Jensen's article much controversy has developed among other prominent psychologists. One significant rebuttal is the statement that was prepared and signed unanimously by the Council of the Society for the Psychological Study of Social Issues, a division of the American Psychological Association.

> As behavioral scientists, we believe that statements specifying the hereditary components of intelligence are unwarranted by the present state of scientific knowledge and we believe statements may be seriously misinterpreted, particularily in their applications to social policy.
>
> The evidence of four decades of research on this problem can be readily summarized. There are marked differences in intelligence test scores when one compares a random sample of whites and Negroes. What is equally clear is that little definitive evidence exists that leads to the conclusion that such differences are innate. The evidence points overwhelmingly to the fact that when one compares Negroes and whites of comparable cultural and educational background, differences in intelligence test scores diminish markedly; the more comparable the background, the less the difference. There is no direct evidence that supports the view that there is an innate difference between members of different racial groups.
>
> A more accurate understanding of the contribution of heredity to intelligence will be possible only when social conditions for all races are equal and when this situation has existed for several generations. Social inequalities deprive large numbers of black people of social, economic, and educational advantages available to a great majority of the white population. The existing social structures prevent black and white people even of the same social class from leading comparable lives. In light of these conditions, it is obvious that no scientific discussion of racial differences can exclude an examination of political, historic, economic, and psychological factors which are inextricably related to racial differences (S.P.S.S.I., 1969).

Another reaction to the Jensen article is Deutsch's commentary (1969). He reviews the literature on compensatory education, intelligence testing, and the nature of educational environments and concludes that Jensen had constructed an article which had "negative implications for the struggle against racism and for the improvement of the educational system." Deutsch says, "the Jensen article holds a consistent bias toward an undemocratic eugenic and racist hypothesis (p. 523)."

The cultural deprivation theories seem to treat the lower-class culture as if it were totally isolated from all communication with the rest of our society. No one, as I can recall, talks about the reality: there is no subculture in our larger society that is so deprived as to be unable to have some communication with the larger culture through our mass media, through television, through motion pictures, or through just being a part of this society in which people are at least able to see other people and listen to them. The sophisticated version of the cultural deprivation explanation of academic retardation for Negro children ostensibly has built up a mythology of cultural isolation that does not seem to be supportable by reality. One would suspect from a careful perusal of the literature which allegedly offers an explanation for Negro children's inability to learn that these children have never had any contact with television, radio, or moving pictures.

Sometimes, we find in the literature explanations of lower-class culture in terms of differences in motivation. The most classical illustration of this theory is that lower-class subcultures demand immediate rather than delayed gratification. This apparently accounts for the fact that lower-class children are unable to learn to read because to learn to read requires delayed gratification.

I must say that after examining various studies offering explanations for poor reading performance among the ethnically different learner, and especially the blacks, they are not as real as they seem.

There are some basic questions which we must address ourselves if we are going to be serious about the issue of more efficient education for minority ethnic groups. In what way does membership in a minority ethnic group actually interfere with the ability of a child to learn in the elementary grades? What is meant by cognitive deficit as it relates to the ability of a human being to be taught? What is the relationship between the methodology for educating the ethnically different children and the explanations that have been offered as to why they have not learned in the past? To what extent do social deprivation theories perpetuate and explain educational inefficiency among ethnically different children because they are not being taught effectively? To what extent are they not being taught because those who are in charge of teaching them do not believe that they can learn, do not expect that they can learn, and do not relate to them in ways that are conducive to their learning? The reason may very well be that these children are rejected in the classroom.

Inasmuch as I am a member of a depressed minority group in our society, I, too look with suspiciousness of the classical studies and theories which purport to explain why my situation is no better than it is. I think that the privileged, or the majority ethnic group has proposed the cultural deprivation theories. They have proposed the IQ gaps, and they have controlled the class and caste factors in our society which cannot and should not be ignored in dealing with this very serious educational problem. Let me repeat: minority ethnic groups, and especially Blacks, have been and still are enmeshed in racial class, caste, and self-image psychological problems. Those who write about these problems, by and large, are members of a more privileged group and who cannot possibly be honest and objective in their comparisons.

I think the reality will come for cognitive and affective concerns of minority ethnic children when there is more efficient and effective teaching and less theorizing about why they cannot and do not learn to read. There is sufficient evidence available now that these children will learn if they are taught and they will not learn if they are approached as if they cannot learn. If minority ethnic children "are taught, accepted, respected, and approached as if they are human beings, the average performance of these children may approach and eventually reach the norm performance of other human beings who are so taught (Clark, 1968, p. 189)."

I believe that if human beings are taught, by and large, they learn. And if they are not taught, they do not learn.

REFERENCES

Clark, K. B. The cult of cultural deprivation: a complex social phenomenon. In G. Natchez (Ed.), *Children with Reading Problems*. New York: Basic Books, 1968. Pp. 179-189.

Codwell, J. E. The education improvement project of the southern association of colleges and schools—a focus on improving the educational performance of disadvantaged pupils. *The Journal of Negro Education*, Summer, 1967, *26*, 326-327.

Deutsch, M. Happenings on the way back to the forum: social science, IQ, and race differences revisited. *Harvard Educational Review*, Summer 1969, *39*, 523-557.

Deutsch, M. The disadvantaged child and the learning process. In A. H. Passow (Ed.) *Education in Depressed Areas*. New York: Teachers College, 1963. Pp. 163-179.

Gordon, E. W. (Ed.) Disadvantaged population. *ERIC — IRCD Bulletin*. September 1967, *3*, 1.

Havighurst, R. J. Who are the disadvantaged? *Education*, April 1965, *85*, 455.

Jensen, A. R. How much can we boost IQ and scholastic achievement? *Harvard Educational Review*. Winter 1969, *31*, 1-123.

S.P.S.S.I. Statement. *Trans-Action*, June 1969, *6* (8), 6 & 75.

U.S. News and World Report. March 10, 1969, *66* (10), 48.

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TEACHING READING TO COLLEGE STUDENTS WHOSE BACKGROUNDS ARE DISADVANTAGED

Proficient reading and study skills are important variables in success and failure of students at the college level. A growing awareness of the reading deficiencies of freshmen students at Texas Southern University lead to this longitudinal study[1]which was made to determine an effective method for teaching reading to college students of partially or wholly disadvantaged backgrounds. An assessment was made of the relative effectiveness of a textbook-oriented and a machine-oriented approach in teaching college students whose reading achievement, as indicated by pretest scores was below the level of required competency (12.5 reading level or better) for success in college courses.

RELATED LITERATURE

Entwisle (1960) evaluated 22 study-skills courses using academic success as the criterion measure to determine whether the study skills course were effective. Among Entwisle's conclusions were: study skills courses are usually followed by academic improvement; and any gains noted were not necessarily related to course content. A comparative study made by Ray and Martin (1967) revealed that substantial gains were made by both low and high performance groups.

Some differences of opinion seem to exist concerning the use of machines for accelerating reading speed. Bish (1952) found that a nine-

[1] The writer is indebted to Mrs. Virgil C. Kenney, Director, Texas Southern University Testing Services, for her assistance in administering and scoring the tests used in the study. The professional advice and critical insight of Dr. Elneita W. Stewart, Director, Texas Southern University Reading and Study Skills Center, is also appreciated.

week, machine-centered program, meeting 40 minutes a day produced significant improvement in reading rate. Dramer (1971) reports favorable results of a study in which projection readers were used. However, supplementary books that paralleled the content in regular classes were also used and the students were of above average in intelligence. Whitehill and Rubin (1971) designed a study to improve reading rate and comprehension in which automatic reinforcing clocks were used. Favorable results were reported from the study. The experimental group used automatic reinforcing clocks while the traditional group alternated between the use of reading accelerators and timed reading with stop watches. The instrumental method produced greater proportional WPM gains than did the traditional methodology. Marani and Maxwell (1968) report a significant gain when medical laboratory assistants used T-scopes and controlled readers. Thompson (1956) compared a machine-centered program with a book centered program and found that the latter was significantly better in increasing reading speed with no significant difference in comprehension.

Sechriest (1951) gives the following advantages in the use of a rate controller: it discourages regressions; it does not allow time for vocalization; it is a motivating device - producing competition with one's self; it helps improve concentration; the psychological effect is to push the student to read faster. In agreement with Sechriest, Smith (1957) says that "probably the chief value of instruments is two fold: they motivate attempts to read faster, and show a person how fast he really can read when he is forced (p. 366)."

However, Karlin (1958) found, in his review of research in the use of machines, that "in eleven of the twelve investigations which measured natural reading against machine reading, the groups that received training in the former either equaled or surpassed the machine groups in rate of reading (p. 352)."

Savage (1970) observed that limited use has been made of mechanical devices such as tachistoscopes, controlled readers and other accelerators in reading clinics in an effort to improve reading rate.

METHOD

The population for the study consisted of 163 male and 169 female beginning freshman students. The students were arbitrarily divided into two treatment groups: textbook-oriented and machine-oriented.

According to Nelson-Denny Scores, students who scored between 9.1 and 12.9 enrolled in Reading 114 while those who scored -7.0 to 9.0 enrolled in Reading 112. This first testing was done as part of the admission requirements.

Two classes each of 112 and 114 were included in the study for three consecutive semesters exclusive of summer terms. One class each of 112 and 114 were placed in a textbook-oriented and machine-oriented group each semester. Each class met for one hour, twice per week on alternate days for eighteen weeks per semester. Two weeks prior to the end of each semester all students were administered an alternate form of the Nelson-Denny test to ascertain growth in rate, vocabulary and comprehension, if any.

MATERIALS

Tachistoscopes were used as eye-span trainers. Controlled readers were used for directional attack. Accelerators, pacers, and skimmers were used to improve reading rate. Machines were used exclusively with the machine-oriented groups.

The textbook-oriented instructional approach, aimed at improving comprehension, concentrated on strengthening such skills as grasping main ideas, noting authors' purpose, critical evaluation of arguments, and vocabulary study. The techniques consisted of students reading material of increasing difficulty with an attempt on the part of the student to increase the speed of comprehension and, through discussion to have students analyze the ideas and structure of the selection read. No mechanical devices were used. The textbook-oriented groups used *Reading Improvement Program* (Edwards and Silvaroli, 1969) and *Toward Better Reading Skills* (Cosper and Griffin, 1967).

The *Nelson-Denny Reading Test, Form A* and *B* were used to measure the initial and final rate, vocabulary, and comprehension of all subjects.

RESULTS

Pre-Test Data

The two groups were well matched. There were no significant differences between the groups on pre reading scores or IQ. The mean reading grade level for the machine group was 9.3; for the textbook group 9.6. The IQ scores were machine 97 and textbook 95.

Post Test Data

Table 1 presents the Nelson-Denny test results for both groups. Each group averaged two months of growth. No advantage was apparent for either of the major treatments. Specific individuals made good gains. However, only a small percentage of the total population had reached a level of reading performance established as indicative of college success.

Table 1
PRE-POST GAINS

	Pre Test Means (grade levels)	Post Test Means (grade levels)	Gains (months)
Machine Group	9.3	9.5	2
Textbook Group	9.6	9.8	2

Table 2 presents the grade level distribution at the end of the courses.

Table 2

Post Test Nelson-Denny Results

Reading Grade Level	Machine Group %	Textbook Group %
14+	1.9	4.5
13	7.8	4.5
12	7.1	8.3
11	6.5	9.6
10	14.8	12.7
9	22.6	25.4
8	16.7	16.6
7-	21.3	17.8
less than 7	1.3	0.6
percentage at or above minimum college success level	17	17
Mean Grade Level	9.5	9.8

CONCLUSION

The results of the experimental program described in this study indicate that the machine-oriented approach had no advantage over the textbook-oriented approach in increasing reading rate or comprehension. Individual gains in reading rate and comprehension were most noticeable among students who were consistent in their attendance. Regression in reading achievement was more prevalent among students who were taught by the textbook approach and those who attended sporadically.

Based on the results presented in the study, the following conclusions may be drawn: students do better when they are consistent in class attendance; students of disadvantaged backgrounds need extended teaching of reading and study skills; more research is needed to determine the effectiveness of reading instruction by a machine-oriented approach.

REFERENCES

Bish, C. E. An experiment in reading improvement. *Bulletin of the National Association of Secondary School Principals*, January 1952, *36*, 89-96.

Cosper, R., & Griffin, E. G. *Toward better reading skill*. (3rd. ed.) New York: Appleton-Century-Crofts, 1967.

Dramer, D. Self-contained reading oriented classes in secondary schools. *Journal of Reading*, March 1971, *14*, 365-368.

Edwards' J. L. & Silvaroli, N. J. *Reading improvement program*. Dubuque, Iowa: Wm. C. Brown Company Publishers, 1969.

Entwhistle, D. R. Evaluation of study skills courses: a review. *Journal of Educational Research*, 1960, *53*, 247-251.

Karlin, R. Machines and reading: a review of research. *The Clearing House*, Feb. 1958, *32*, 349-352.

Marani, S. D., & Maxwell, M. A reading and study skills program for medical laboratory assistants. *Journal of Reading*, May 1968, *11*, 615-620.

Ray, D. D., & Martin, M. D. Gains in reading achievement. *Journal of Reading*, Jan. 1967, *10*, 238-242.

Savage, J.F. Teaching reading with aid of technology. *Audiovisual Instruction*, Nov. 1970, *15*, 24-25.

Sechriest, E. E. A program for the improvement of reading of school youth. *Bulletin of the National Association of Secondary School Principals*, March 1951, *35*, 56-62.

Smith, N. B. *Read faster and get more from your reading*. Englewood Cliffs: Printice-Hall, 1957.

Thompson, W. C. A book-centered course versus a machine-centered course in adult reading improvement. *Journal of Educational Research*, Feb. 1956, *49*, 437-445.

Whitehill, R. P., & Rubin, S. J. Effectiveness of instrumental and traditional methods of college reading instruction. *The Journal of Experimental Education*, Spring 1971, *39*, 85-87.

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Tuskegee Institute

A READING PROGRAM FOR DISADVANTAGED STUDENTS IN A PREDOMINATELY BLACK COLLEGE

Tuskegee Institute is a co-educational, independent, privately controlled, professional, scientific and technical institution, having a student population of more than 3,000.

Thirty-two degree-granting courses of study constitute the curricula for seven major areas of instruction–College of Arts and Sciences, School of Applied Sciences, Education, Engineering, Veterinary Medicine, Nursing and Department of Physical Education. Graduate programs are offered in the College of Arts and Sciences, and in the Schools of Education, Engineering, Veterinary Medicine and Applied Sciences.

Special features in Tuskegee's program include: The George Washington Carver Museum which preserves the tools and handiwork of Dr. Carver, as well as houses displays on Tuskegee, Africa, and Negro life in general; the George Washington Carver Research Foundation, center for a variety of research sponsored by government agencies and private industry; the Department of Behavioral Science Research, a chief center for information on the problems and history of the Negro since 1896; and the Reserve Officers Training Corps for the Army and Air Force.

Luther H. Foster has identified Tuskegee's mission as, "We serve largely those who might not otherwise have the opportunity for a college education—mostly black, but without rigid racial lines; we focus on professional training in the sense of vocation and with an appreciation of the role of liberalizing educational experiences in the curriculum; we seek continual relevance in our work for those who study on campus, along with a warm participatory relationship for teachers, students, and staffers alike;

and we sense a special opportunity to reach out into the nearby community to render timely service to out-of-school citizens in a variety of creative ways, using this as a teaching-research laboratory as well as a service arena (1971, p. 7)."

Tuskegee Institute is, by tradition and current commitment, duty bound to serve most of the young people who would not have the opportunity if there were no Tuskegee. Students of both high and low rank are accepted on the basis of potential and motivation.

Each student upon entering is assigned a member of the college faculty as an advisor. Conferences, course programs, course changes, grades, and parent conferences are some of the aspects of student life shared with advisors.

READING PROGRAM

The Reading program at the Institute is offered specifically to assist first year students to develop more fully those intellectual abilities and perspectives necessary for successful collegiate study.

The Reading courses are operated within an independent department in the School of Arts and Sciences, although it works in close cooperation with other departments. Reading courses are organized as separate courses to permit reading instructors to determine the over-all objectives and practices of the program. According to Barbe's study of forty-eight colleges (1951), thirty offered reading instruction in a separate reading course. Unless the program is organized as a separate course, departments such as English, are likely to control the total language-arts offering. In view of a large number of incoming students with basic weaknesses in reading as shown by scores earned on standardized tests, an all-freshman reading improvement course is just as important as Freshman composition.

At present three instructors with master degrees are in the reading program on full time basis. Additional staff is needed, but budgetary limitations make it impossible for this year.

DIAGNOSTIC PROGRAM

One of the important steps in the reading program is to survey and appraise the reading attainments, interests and needs of sudents. At the beginning of each semester, the Nelson-Denny Test is administered to all new students for placements. After the tests are scored and survey instruments are studied, students are grouped homogeneously 30 to 45 students per class. They are required to enroll and attend class three days per week. This is a college requirement if their total reading scores from the Nelson-Denny is 13.5 or lower. No credit is granted for this course, even though it is desired by both reading faculty and students. We hope along with Miller..."That increasingly on American college campuses a reading program carrying credit will take its place alongside other 'personal development' courses, such as English composition and speech (1958, p. 39)."

A roster of the students tested along with reading class schedules are sent to advisors, who can then include reading a part of the students course schedules. Students with total reading scores of 13.6 or above do not have to take reading, but may volunteer for the course.

Data shows that most students come from typical disadvantaged orientations. Few entering students have used a library card catalog and only a small percentage have read the works of fiction and non-fiction which are a part of the experiences of most high school graduates in America. Survey instruments show that our students have not reached the level of expectation upon entering college. Those enrolled in reading classes generally possess reading skills found in grades 7-12.

INSTRUCTIONAL PROGRAM

The student's present achievement level, his capacity to learn, his life experiences, his present physiological and psychological needs, his strengths and weaknesses are determined prior to the initiation of instruction.

A number of techniques are used to pinpoint specific needs, including the completion of a personal data form by each student, and visual and hearing screening tests. Individual conference with each student concludes initial diagnosis. However, it is axiomatic in reading that diagnosis is continuous until reading therapy is completed. It is also understood that referrals to other agencies and/or departments are made whenever necessary.

The instructional period attempts to remove specific problems of each student; develop the theoretical foundation for various reading skills, provide enumerable opportunities to practically applied reading skills, and to discuss reading and general factors on an individual or small group basis. A creative approach to learning is utilized so that each student can manipulate his past experiences and perceptions and can use his emotional and artistic responses. Instruction proceeds from basic general skills to specific study competencies to creative reading techniques. Detailed daily records are maintained for each student during the instructional period.

As instruction proceeds, individuals who need special assistance are given additional aid in tutorial sessions by tutors and instructors. In addition to these sessions, facilities are open at various times to permit students to work independently. A student technician is available during these hours to pass out and collect materials.

MATERIALS

A wide variety of material is used during the instructional phase. A Reading Clinic Guide provides a breakdown of all materials available. This guide is an invaluable aid to teachers in their planning for students and to students in their selection of material to meet specific reading needs.

In addition to published materials some items are prepared by the clinic staff. Programmed lessons are developed using materials from some freshman textbooks. Some generalized and specialized vocabulary lists are also prepared. The initial lesson is on tape. It serves to introduce students to the Reading program and to the equipment.

EVALUATION

An evaluation of the Reading Program is conducted at the end of each semester by the use of quantitative and qualitative measures. Reaction of teachers and students, perusals of class exercises, conferences with students, evaluation of informal tests, and post-testing with different forms of tests used in the initial diagnosis are the sources of measurement of the success of the program.

REFERENCES

Barbe, W. B. Reading improvement services in colleges and universities. *School and Society*, July 1951, *74*, 7.

Foster, L. H. *To Achieve the Mission*. Tuskegee Institute, Fall Convocation, Sept. 1971.

Scott, F. D. Evaluation of a college reading program, 1952-56. *Journal of Developmental Reading*, Autumn 1958, *2*, 39.

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REACHING RURAL ADULTS

How we reach people is as important as what we offer. I would like to deal with motivation methods and problems of delivery of programs to rural adults. Especially to the so-called disadvantaged and undereducated rural adults--and I rebel against those terribly stigmatizing words but I have no better replacements at the moment.

In most rural areas the disadvantaged and undereducated are, to a great extent, invisible. They are usually not concentrated in pockets of poverty. Isolation and dispersal reduces their visibility, makes communication between and with them difficult and creates many problems for programs that are established to deal with their needs.

The rural undereducated are characterized by the marginal jobs they hold...as farm hands; as unskilled or semi-skilled labor in small town service jobs; or they struggle to maintain a few acres of their own farm land. Often they retreat into their homes, lead insular and limited lives, seldom becoming involved in community activities.

Manv times their pride and independence causes them to reject existing social services that they view as charity. Census figures tell us that while rural families make up more than 40 % of the nations poor, they comprise less than 30 % of the total population. In some areas as many as 60 % or more of the rural adults 25 years of age and older never went to high school. In Wisconsin over 50 % never went to high school. (RFD Project, 1969)

Traditional come-to-class approaches, on the whole, have seldom succeeded on a broad scale. Rural adults resist attending literacy or adult basic education classes. In most cases they have spent a lifetime keeping communication skill deficiencies secret. In rural communities, where everyone is conscious of what their neighbors do and think and where pride makes many avoid embarrassment at all costs, the pressure to stay away from basic education programs is great. Many undereducated adults are threatened by such things as school buildings, classrooms, teachers and books -- the symbols often associated with past failures and troubles. We must find alternative ways of reaching the rural adult. One delivery system, tested in Wisconsin through the RFD project funded by the United States Office of Education, used a multi-media outreach approach. Designed primarily to reach rural undereducated adults with at least rudimentary reading skills, RFD tested a delivery system that turned living rooms into learning centers. The delivery system, modular in design, utilized television, radio, the mails, the telephone and personal visits in the home by paraprofessionals familiar with rural life and needs. A broad variety of opportunities for involvement were offered. Rather than asking participants to come to us, we went to them. RFD offered a weekly half-hour magazine format TV program, a weekly 3 1 / 2 minute radio program aired on local public and commercial stations, bulletin format print materials sent to participants through the mail, an RFD Almanac newspaper sent to participants, a toll free telephone action line feedback system designed to deal with participant problems, and a weekly home visit by paraprofessionals to maintain personal contact so often lacking in media-based, independent-study programs.

Some partial results support the basic contention that a comprehensive, multi-media outreach program of this type, based on Extension techniques of proven soundness succeeded in ameliorating many of the traditional problems faced by Adult Basic Education programs in rural areas. With participant oriented goals, RFD was interested in learning what content and curriculum areas would be of greatest value to participants. Surveys indicated that adult priorities centered around such subject areas as Living Within My Means, Smart Food Shopping, Looking for a Job, Becoming a Better Person, and Understanding Insurance – in short, living and coping skills. Nowhere in the top ten interest areas were Improving Reading or Increasing My Vocabulary, or Using Math Better. The message was loud and clear -- provide information about living skills that can be used now, that will improve lives immediately.

Over 98% of those surveyed indicated they listen to radio, 100% watch TV. The favorite programs on both radio and TV (two to one over the next closest type) was the news. Not completely surprising when one considers that electronic media are the primary point of contact with the world for most undereducated adults. This, by the way, does not mean that news is what they watch most rather what they consider most important.

Over 90% claim to have cookbooks in the home, 66 % encyclopedias, 90% a dictionary, 60% novels, 93% a Bible. But over 91% said they do not use a library or bookmobile service! While only 80% said they have a newspaper delivered to the home, over 93% said they read one: 56 % use catalogs to buy things: 46 % use the Yellow Pages. When asked what they do for fun and recreation during free time, 8 % indicated reading in their first three choices: Over 23% go fishing: 18% watch TV: 13 % do handiwork.

One question may be of special interest to us, "What do you find is the best way of learning ideas and facts for you?": 38 % said by doing it themselves (independent study?); 16 % from examples and demonstrations; 13 % by trial and error; 11% by learning from a neighbor or fifriend; and just 8 % from a professional teacher.

When asked if they would like a refresher or brush up course to improve reading skills, 35 % said yes. Interestingly, when asked if a reading program would appeal to people living in rural areas, 65% said yes—Fine for my neighbors but not for me! (RFD Project, 1969). While there seems to be a recognition that improving reading skills is desirable, there is little that most rural adults want to do about it. In general, they are much more interested in acquiring living or coping skills, relegating communication skills to a lower priority. Since there is great motivation toward acquiring living and coping skills, it is strongly recommended that this readiness be used to advantage as the basis of introducing reading, writing, and computing skills. Often we introduce people to basic continuing education experiences by emphasizing the three R's "If you learn to read better you will open up new vistas and opportunities for yourself." Unfortunately this approach is successful for only a very few. If, however, information is provided that helps adults solve immediate problems and assists with living and coping strategies, this can serve as the springboard to communication and computation skill development. A housewife who wants to cook better for her family may want to learn new recipes. We might suggest she learn to read better and use fractions better before proceeding. A quick way to turn her off. If, on the other hand, we offer to struggle with her through some new recipes, it may not take her long to realize that she must improve basic reading and math skills to take full advantage of new recipes. The adult who can identify his own shortcomings and needs, one who sees a reason for improving basic skills, will be more apt to undertake a development program than the adult who is told his shortcomings and needs. By incorporating basic education skill building into coping and living skill information, the individual is offered a greater chance of success. Offering literacy or reading and math programs alone, out of practical context may, for many adults, be an unsuccessful recruiting and retention practice in rural areas.

Concepts that describe adult learners, as spelled out by Knowles (1970), are equally valid for rural and urban adults:

> Adults enter a learning activity with an image of themselves as self-directing, responsible grown-ups - not as immature, dependent learners. Therefore, adults resist situations in which they are treated with disrespect.

> Adults enter a learning activity with more experience than youth. Therefore, they have more to contribute to the learning activity and have a broader basis of experience to which they relate new learning.
>
> Adults enter a learning activity with a different quality of experience and different developmental tasks than youth.
>
> Adults enter a learning activity with more immediate intentions to apply learning to life problems than youth. Therefore, adults require practical results from learning.

Since each adult has different needs and comes to us with different experiences, a carefully structured and sequenced program may not be the best approach to reaching adults. A non-sequential, random entry--random exit, broad scope content program serves the needs of many on a non-threatening, non-limiting basis.

RFD has taken a hard look at the entire problem of destigmatizing programs, billing them not just as specialized programs for the disadvantaged or the undereducated. Sesame Street, for example, appeals to a very broad audience even though it is directed and targeted toward acquisition of skills needed by a specific segment of the audience. By attracting a broad audience, from all walks of life, at all income and education levels, there is little if any stigma attached to participation. In reaching rural adults who have had unpleasant experiences with schools in the past, it is essential to remove as many of the old and threatening images as possible. Classroom, teacher, textbook, blackboard, test, and school are all words that can conjur up the most frightening images for people who relate previous failure to those very words. We have also discovered that some adults do not appreciate being called rural residents. They consider the term demeaning and unsophisticated. When we speak of a rural population, we must remember that in many areas better than three quarters of all rural adults live in small towns. Many small town residents do not think of themselves as rural. Rural to them means farm and any person who does not live on a farm is not rural . The word rural to them can be just as stigmatizing as the words poor, disadvantaged, ghetto, or undereducated. If there is one thing we have discovered, as we have created and tested the RFD system, it is that the rural-urban dichotomy is significantly less important than we originally thought it was. The needs, feelings, desires and attitudes of the rural adult are much more closely aligned with their city couterparts than we imagined. Their methods of solution may differ, but their concerns are similar. It is possible that our extensive mass communications networks -- television and radio especially -- along with the automobile have been instrumental in reducing and minimizing this dichotomy.

It is essential, in my judgement, that we develop and offer rural adult learners a broad variety of learning systems and methods. We must allow for individual differences... not just preach it. Learning reading from comic books and even Dick and Jane, for some few people, might be best for them. The greater the variety of systems and methods we have available, the more people we should be able to serve, and the better results we should have. RFD is just one of those systems. The RFD approach is now being evaluated. This evaluation will, we hope, indicate what potential this particular delivery system will have to rural and urban outreach porgrams.

REFERENCES

Knowles, M. S. *The Modern Practice of Adult Education*. New York: Association Press, 1970.

R.F.D. Project. *A Rural Adult Interest Survey*. Madison: The University of Wisconsin, 1969.

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THE LIBRARY READING PROGRAM FOR THE ADULT NEW READER

Habitual readers tend to forget that to read is one of the great victories of life. Adult new readers realize better than anyone else how great the achievement is. In his autobiography, Malcolm X (1964) describes the situation common to millions of aduits with reading problems, "...every book I picked up had a few sentences which didn't contain anywhere from one to nearly all the words that might as well have been in Chinese (p. 172) ." He takes action by copying page after page of the dictionary, writing day after day, reading, and reviewing the meanings He testifies, "I suppose it was inevitable that as my word-base broadened, I could for the first time pick up a book and read and now begin to understand what the book was saying. Anyone who has read a great deal can imagine the new world that opened (p. 173)." "...I knew right there in prison that reading had changed forever the course of my life (p. 179)."

Some of my basic assumptions underlying an effective library reading development program are:

1. the progress of the adult new reader from beginning literacy through variable literacy to an increasingly mature use of print is aided by the relevance of materials to his motivations, strong interests, value system, life style, roles, and tasks;
2. the continued reading of materials by the adult new reader serves as a reinforcement in the development of basic reading skills and as a source of general information, enrichment, broader understanding, aesthetic pleasure, and immediate goal satisfaction;

3. the more that can be known about the adult new reader, his characteristics and reading behavior, the more effective can be the reading guidance service to him;
4. the application of standards for evaluation, selection, and use of materials, as developed in the criteria for analysis of materials, can bring together more appropriate materials and a greater range of choices for the reader.

THE ADULT NEW READER

The description of the adult new reader and the criteria for anlysis of reading materials are based on findings from the four major studies in the Library Materials Research Project (LMRP), which are: the content analysis of existing materials; a survey of the adult new reader in a random sample drawn from participants and students in selected public library reading development programs and local adult basic education and job training programs; a study of reading materials within the context of use in national adult basic education and job training programs; and the analysis of indigenous literature for special relevance to the interests of the adult new reader.

Robinson (1963) indicates that the adult reader achieves complete literacy when he is able to read critically, to evaluate what he reads, to integrate facts and ideas, and to use concepts gained to help understand further reading. The adult can then become a discriminating, independent reader. Lyman (1971) suggests that today an individual must be at an eighth grade level of reading achievement to be considered functionally literate; that is, he is able to function in everyday situations. Many adults have no opportunity to acquire basic education. Otto and Ford (1967) report that many adults lapse into illiteracy because they have failed to learn while in school, are dropouts from school, or because they have no reading materials suited to their needs and no knowledge of, or access to, resources that constitute a rich and relevant reading collection, such as a library.

ADULT NEW READER SURVEY

The survey of adult new readers has identified special segments in the population, their social characteristics and reading behavior and interests. Findings are based on interviews with 479 persons drawn from the ghetto areas of Baltimore, Cleveland, Los Angeles, New York, and Philadelphia. In each city, the desired sampling process involved four steps beginning with the estimation of the total number of participants in each program, and ending with the final completed interviews: estimating the total number of participants in each program from which respondents were to be selected; selecting a proportionate stratified random sample of persons from the programs; contacting through the interviewers the proportionate stratified sample; granting an interview through self-selection by the respondents, who in the end decided whether or not to participate. Through this procedure the sample was selected by taking sub-samples proportional to the size of the significant programs in the subdivisions of the universe. These subdivisions are adult basic education, job training, and public library reading development

Among the reader respondents, 69 % are women. Interviewers identified three-fourth as Black. Nearly all speak English, and one-fourth also speak a second language. More than half the readers are under the age of 35, and three-quarters are under the age of 45. Nearly one-fourth are in the 16 to 24 age group, and an equal percentage are over 45. The median age is 33.7 years. The average period of residence in the present locality is 24 years, yet one-third have lived all their lives in the city.

In terms of formal education, these adult new readers have attended an average of 10.2 years. Nearly two-thirds have completed between seven and eleven years of school. Nearly a fifth have less than a sixth grade schooling, and an equal number have completed high school. A majority of readers, 58 % have participated in adult basic education programs; 30 % in high school equivalency; 19 % in Work Incentive Programs; and 16 % in Manpower Development and Training; 13 % in public library reading development programs. More than half of the readers are in the labor force, one-fourth in school, and nearly a fifth keep house. Of those currently employed (45 %): 18 % are in blue collar and 18 % in craft occupations; 16 % in clerical; and 12 % in white collar occupations; 36 % in service occupations.

Although the family incomes range from zero to $10,000 and over, nearly 20 % have incomes less than $3,000, and 40 % between $1,000 and $6,000. The median income for individuals is approximately $3,500, and for families, $5,000.

Everyone watches televion; 95 % listen to radio, 93 % read newspapers, and half of these newspaper readers read them every day. Among the 88 % who read magazines, *Life, Look, Ebony, Jet,* women's magazines, and *Reqder's Digest* are particularly popular. The faviorite types of magazines stories are about lives of real people, adventure, crime and mystery, travel, and romance. Fewer persons, 69 % read books. The majority had reported reading two to five books in the last six months, ranging from popular fiction to the occult, and poetry.

Although heterogeneous groups of readers exist, certain homogeneous groups are identified clearly: the Blacks; persons of Spanish origin—Chicano, Puerto Rican and Cuban; and American Indians.

READING MATERIALS FOR THE ADULT NEW READER

Reading materials for the adult new reader in the present context, are those print materials that serve broad reading purposes, that place emphasis primarily on the substantive content rather than the development of reading skills, and that have been prepared specifically for the adult new reader, or are adaptable to his level of use and interests. They provide a volume of reading range. They include materials evaluated and selected in relation to the context of use in daily life situations of home, job, club, street, school, and adult education programs. The latter involve some study aspects which will use print materials or stimulate and generate their use in independent reading.

In this context, the diversity and variety of reading interests ard various uses of materials is extensive. The number and variety of interests and needs almost equals othe number of individual readers. Reading patterns span a range of life interests, responsibilities, and roles as adults. Nevertheless within this great diversity, certain preferences, common interests, and specific titles stand out clearly. Three titles that were reported again and again are *The Autobiography of Malcolm X* (1964), *Soul on Ice* (Cleaver, 1970), and the *Bible*. Among the 33 most frequently read books reported by readers,half were concerned with Black literature and biography.

It is evident that reading materials must meet a diversity of interests, needs, and abilities. They must be in every possible format, and cover numerous subjects. Special authentic materials pertinent to the interests, life styles, and problems of potential readers have immediate appeal. Such material which has ethnic appeal and values approved by minority groups is limited.

Appeals to readers, sometimes classified as reasons for reading, tend to center around informational or instrumental values. The practical materials relating to homemaking, child care, job training and advancement, and school work are helpful when they provide aid and solutions for everyday problems such as writing letters, credit buying, cooking, getting a driver's licence, filing tax forms, reading maps, magazines, and newspapers. Basic education leaflets are examples of materials at this practical and beginning level, such as the *Be Informed* series (1967) and the *New Streamlined English Series* (Laubach, Kirk and Laubach, 1970).

Personal and social development are important areas of interest. The biographies of the lives and problems of persons, unknown as well as famous, as well as sensitive portrayals of characters in fiction with whom readers can identify, have special appeal. Examples are Maya Angelou's *I Know Why the Caged Bird Sings* (1971) and Lorraine Hansberry's *A Raisin in the Sun* (1965). The reader enjoys the vicarious experience and is able to identify with other men and women, real and imaginary. One young man who was learning to read and had laboriously read *Manchild in the Promised Land* (1966), when asked why he liked this book, replied, "because he made it." Any title with words Black or soul in it is usually certain to interest any young Black person.

Popular best sellers are another special interest. In 1969 at the time of the investigation, adult new readers interviewed were reading *Valley of the Dolls* (Susann, 1967), *Airport* (Hailey, 1968), *The Pimp* (Iceberg Slim, 1969), and James Bond mysteries.

Only a few representative subjects and titles with authenticity and appeal can be noted: the African novel by Achebe, *Things Fall Apart* (1957); Bennett's *Before the Mayflower: a History of the Negro in America* (1964); the Chicago American Indian Center's *Indian Cookbook* (1970); Fairbairn's *Five Smooth Stones* (1968); Galarza's *Barrio Boy* (1970); Garland's *The Sound of Soul* (1969); Momaday's *House Made of Dawn* (1968); and Meriwether's *Daddy Was a Number Runner* (1970).

Survival, civil rights, the counter culture are topics of deep concern. Indigenous literature reflects these interests in such magazines as *Black News* and pamphlets such as Camejo's *How to Make a Revolution in the U.S.* (1969).

EVALUATION OF READING MATERIALS

Traditional criteria for judging reading materials have been used to build library basic reading collections of interest primarily to white, middle class readers. These collections meet the interest and needs of a limited part of the population, primarily students and more educated adults. Public and school libraries have extended services or initiated innovative programs to reach other segments of the population.

The criteria developed in the Library Materials Research Project are qualitative and quantitative standards for measurement to be used in the evaluation of reading materials and in reading guidance. The Materials Analysis Criteria is a checklist which provides a guide for judging key points in various types of reading materials ranging from books to broadsides. It itemizes in convenient checklist form the aspects of reading materials to be judged critically. It serves as a guide for annotations which record specific aspects of the reading material.

The analysis of the content is the most significant part of the valuation. Content is analyzed in relation to the adult roles portrayed, the values and attitudes in the material, and the treatment or mannor of presentation. Readability is evaluated in terms of legibility, special features, learning aids, language, and readability score. The objective evaluation of language, as of values and attitudes, is most significant in judging any material. In the final analysis, only the perceptive, well informed critic, well aware of biases in himself as well as in the material can be objective.

Diversity in physical format of materials, as well as content, is of particular importance. Different types of format frequently signify a type of content not found in the usual book and newspaper sources. The full range of various types of formats brings a dynamic quality to a reading collection. This type of material which is often ephemeral brings to collections current events and new information and ideas. Paperbacks and pamphlets, the popular formats, have cover appeal, ease of handling, and economy. They continue to increase the range of choices among authors and subjects, and to make more accessible the old and the new. The booklets and leaflets are a convenient format for workbooks and programmed series. Many leaflets and forms are free or inexpensive, and available from business, government, and social agencies. They provide a range of information on daily problems such as social security, drugs, tax reports, legal procedure, and credit. Broadsides and posters are unique for content and format. Newspapers and newsletters are indigenous products from the community. They communicate information about local persons, events, and concerns not found in the metropolitan dailies.

SUMMARY

The study has identified special segments of the population, their social characteristics, and reading behavior and interests. The findings relate particularly to the Black population which is predominant in this sample drawn from ghetto areas of the cities surveyed. At the same time, white population is represented. Not all are at poverty level, without any education or reading interests. The report of the detailed findings of the LMRP investigation is in preparation (Lyman, in press). The major products of the research, an instrument for evaluation of materials, the Materials Analysis Checklist, and an annotated, selective bibliography of materials for the adult new reader, will be useful to librarians, teachers, adult educators, and publishers. Clearly, further studies are needed: in particular, an experimental study, testing the materials in community situations and with skilled reading guidance staff.

The adult must not only have the opportunity and desire to read to the full limits of his capability, but also the means and the knowledge of the content and character of the reading materials potentially of interest and accessible to him. The problem of guidance and support for the adult new reader's use of reading materials is related to the difficulty, and frequently the failure, of relating the reading materials to realistic situations and interests in the normal life patterns of adult new readers, and the lack of appropriate or accessible reading materials. The public, the school, and the college or university library, all have a responsibility either directly to the adult new reader or to those learning to advise or instruct him. The library staff member responsible for providing reading guidance is a logical adviser, interpreter, and mediator to individual adults, to groups and classes, and to professionals in the field of literacy studies, teaching, and reading.

REFERENCES

Achebe, C. *Things fall apart.* Greenwich, Conn.: Fawcett, 1957.
Angelou, M. *I know why the caged bird sings.* New York: Bantam Books, 1971.
Be informed series. Syracuse, N.Y.: New Readers Press, 1967.
Bennett, L., Jr. *Before the mayflower: a history of the negro in america.* Baltimore: Penguin Books, 1964.
Brown, C. *Manchild in the promised land.* New York: New American Library, 1966.
Camejo, P. *How to make a revolution in the U. S.* New York: Merit Publishers, 1969.
Chicago American Indian Center. *Indian Cookbook.* Chicago: The Center, 1970.
Cleaver, E. *Soul on ice.* New York: Dell Books, 1970.
Fairbairn, A. *Five smooth stones.* New York: Bantan Books, 1968.
Galarza, E. *Barrio boy.* South Bend: Notre Dame Press, 1970.

Garland, P. *The sound of soul.* Chicago: Henry Regnery Co., 1969.
Hailey, A. *Airport.* New York: Bantam Books, 1968.
Hansberry, L. *A raisin in the sun.* New York: New American Library, 1965.
Iceberg Slim (R. Beck) *The pimp.* Los Angeles: Holloway House, 1969.
Laubach, F. C., Kirk, M. & Laubach, R. S. *Everyday reading and writing.* Syracuse, N.Y.: New Readers Press, 1970.
Lyman, H. H. Reading materials for adults with limited reading experience: library programs and services for the disadvantaged. *Library Trends,* Oct. 1971, *20,* 326-349.
Lyman, H. H. *Library materials in service to the new adult reader.* Final report OEC 1-7-071220-5115. Madison: University of Wisconsin Library School, April 1972.
Malcolm X. *The autobiography of Malcolm X.* New York: Grove Press, 1964.
Meriwether, L. *Daddy was a number runner.* Englewood Cliffs: Prentice Hall, 1970.
Momaday, N. S. *House made of dawn.* New York: New American Library, 1968.
Robinson, H. A. Libraries: active agents in adult reading improvement. *American Library Association Bulletin,* May 1963, *57,* 416-420.
Susann, J. *Valley of the dolls.* New York: Bantan Books, 1967.

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THE BEGINNING COLLEGE READER

The National Reading Conference is, of course, concerned basically with reading in college and with the adult reading area. The beginning college reader, however, can be treated as a specific adult type and is so considered for the purposes of this paper.

In a paper presented at NRC last year, Dulin and Quealy wrote:

> Thus the adult learner who comes to a reading class brings with him a good many relatively set patterns of behaviour, and whatever steps we take to change or alter these will of necessity be adaptive, not total. Much as we'd sometimes like to, we're rarely going to completely reverse a student's life-style or substantially substitute our own values, ideals, and aspirations for his. Generally speaking, the improvements made in an adult learner's reading, academic aptitudes, and/or intellectual-cultural involvements will be built-upon, not substitutive for, his own current cognitive style, his own current aspirations and interests, and his own current view of himself and his relationship to the world of words.
>
> Recent research in adult educational diagnosis has tended to shift from what Wark (1965) called "Dean Data"—progress report type information about differences between incoming and outgoing performances of groups—or what we might designate as "Norm Data"—searches for larger and larger pools of base-line information. Research has shifted to study of individual self-concept, personal self-expectations, and the inter-relationships between idiosyncratic cognitive styles and concomitant personality variables as they affect learning. Thus, diagnostic techniques incorporating analyses of

> individual learning styles with opportunities for applying the results of these analyses to realistic learning tasks would appear to be much more productive and useful than are simple assessments of survey data like overall rate, general comprehension level, and the normative appraisal of recognition-level vocabulary (1971, p. 54).

This paper will attempt to describe a study skills program based upon these assemptions and contentions conducted at the University of Wisconsin-Eau Claire. This course is a one-credit elective and is offered in multiple sections four times per academic year. Enrollments are limited to 25 students per section and more than 300 students are accommodated during an academic year. The program is maintained on self-sustaining funding.

The study skills program is composed of a series of seven single class-hour lecture demonstrations with the following titles:

Analysis of Ineffective Study Habits and Use of Scheduling Study
The SQ3R Technique, the Most Effective Method of Study
The Art of Note Taking
Analysis of Individual Students Learning Style Through Use of a Standardized Instrument
Vocabulary Development, Techniques and Materials
Preparing for and Taking Examinations
Skimming, Skanning and Speed Reading

Last year video tapes were made on topics 1, 2, 3 and 4 which have been used with half of this year's new sections in an attempt to measure difference in effectiveness between live and video presentations.

I will attempt to describe the first video tape, Analysis of Ineffective Study Habits and Use of Scheduling Study, and how this presentation affects the beginning college reader in terms of adaptive behavior.

The core of the presentation revolves around the concept of "avoidance patterns" which is defined as repeated or habitual activities on the part of the student which result in diminishing concentration while studying or which results in the student ceasing to study altogether.

Examples of avoidance patterns are illustrated on the tape. Currently those avoidance patterns cited are the nicotine fit, the hunger pang, the communications break, the uncontrolled break, the sleep syndrome, and the non-organizational pattern. These labels are attempts on the part of the author to present easily identifiable samples for consideration by college freshmen to help them to ferret out and specify their own particular limitations in this area. In order to move students away from the vapid generalization (I will get serious about studying after —), with which so many tumble from day to day and semester to semester, it is recommended that each student attempt to introspect his study habits and label limitations as specifically and as concretely as possible.

Let me illustrate by using the nicotine fit avoidance pattern. Students who smoke are urged to answer the question "Are you smoking more and studying less?" At the end of an evening of study, how many cigarette butts are there in the ash tray? How long does it take you typically to smoke a cigarette? Multiply the average time one takes times the number of butts in the ash tray. Subtract this from your total study time. Do you feel that this represents an unreasonable amount of time? If so, attack the nicotine fit avoidance pattern now instead of engaging in fantasies of studying more and better sometime in the indefinite furture.

In all avoidance patterns, a simple two-step process is recommended, first recognition and second control. Most students report that the first step is the more difficult: to admit the existance of a specific limitation. Once the limitation has been specified., patterns of control can be attempted. In the case being illustrated students have reported a variety of control patterns which are discussed by students in subsequent sessions. Breaking cigarettes in half, limiting the number taken to the study situation and using the cigarette as a reward for the accomplishment of a self prescribed goal in study are three of the many suggested by students. The last is an example of what some might consider an application of behavior modification theory.

Each of the avoidance patterns listed here is taken from a different area of behavior. Some of these patterns could be reasonably designated as psychological, physiological or sociological. The hunger pang syndrome is more easily illustrated by the response of one Eau Claire freshman. As a dormitory student on the university food plan, he observed that although he consumed the same relative quantity and quality of food daily, he only was conscious of being hungry and needing a snack on study evenings. On Fridays, Saturdays, and Sundays, he felt no hunger pangs until midnight pizza snack time. On Mondays through Thursdays, hunger pangs drove him to a campus cafeteria somewhere around nine o'clock in the evening from which he failed habitually to return to study. His self initiated pattern of control was simply to take a snack to the room and to ignore any subsequent temptation to go to the cafeteria until study was completed for the evening.

Of the more than 1,200 students who have taken the program, every one has reported some difficulty with the communications break syndrome. It appears that college students are disturbed by the sounds of silence. Many found that after very brief periods of study, they would create a communications need. "I must call Bill now." "I forgot to tell Joan," etc.. Many students reported yielding to communications breaks thrust upon them, "Jim knocked on my door and said everyone is going down to the Barrio. I really should stay and study but I can't help it if I'm so popular." Control patterns here are self evident. Once again, the first step, recognition, is clearly the way to a solution of the avoidance pattern.

Blank time slot study schedules covering an entire week are provided for each student. It is suggested that each student fill in all the time slots which are fixed in the schedule including part time work and recreation. He is then advised to plan a study schedule from the remaining hours. Three time periods are brought to his attention. First late afternoons - How do you use the time between your last daily class and dinner hour? I found it surprising that so many college freshmen spent a quarter to three-quarters of an academic year apparently locked in to a high school study pattern where only evening hours were used for study. It was urged that students who had never done so try afternoon study. The second period recommended for evaluation was late morning free time. The time slot analysis and class discussion revealed that most beginning college readers simply goofed around when no class was scheduled until 10 or 11 a.m. This was the first time in their lives that these early mornings were non-scheduled for them. The third period was the weekend. Students reported that weekend study was limited to future probability and good intentions. In applying patterns of control, many students reported that when they specifically prescribed certain hours for weekend study, they were able to accomplish just as much in terms of shopping, dating, recreation and the like, while finding more study hours available in their weeks.

Every college reading instructor who has worked in the study skills area, has heard students say, "I'm falling behind in my work. Teach me to read faster." It appears that consciously specifying a greater number of hours per week for study is a partial solution at least to this problem.

This paper has been an attempt to describe a study skills program designed for the beginning college reader. The program is an example of an effort to more fully utilize introspection in adapting study behavior of beginning college students.

The plethora of materials for the college student in the study skills areas is constantly increasing. Many of these packages contain materials which work in highly discreet sub-skills through some type of programmed technique with or without the aid of a media device. Although there is obvious proven merit for this approach I fear the American propensity for packaging and programming may overwhelm us if we continue to move in that direction only. It appears to me that the role of introspection combined with discussion is a road wich needs more use. Perhaps it will be of better worth.

The beginning college student faces many challenges. Hopefully a variety of avenues will become available to him in the area of study skills because it is his awareness of his strengths upon which he must capitalize and his weaknesses for which he must compensate which will best enable him to achieve his potential. Henry Adams wrote -- "What one knows in youth is of little import: he knows enough who knows how to learn."

REFERENCES

Dulin, K. L. & Quealy, R. J. Diagnosis and prediction of reading performance at the adult level. In F. Greene (Ed.), *Reading: the right to participate.* National Reading Conference 20th Yearbook. Milwaukee: the Conference, 1971, Pp. 53-59.

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THE VOCATIONALLY-ORIENTED READER

In *The Improvement of Reading*, the authors see the reading program as similar to a suit of clothes, for in "...no other discipline is the need for individualized instruction so apparently crucial (Strang, McCullough & Traxler, 1967, pp. 41-43)." The good reading instructor, therefore, being an expert tailor, begins with the client, "Who is he? What does he want?"

DEFINING THE VOCATIONALLY-ORIENTED READER

Wisconsin statutes define the student eligible for admission to a vocational, technical and adult school as any resident or municipal employee who is at least 16 years of age. Vocational education, specifically, "... is designed to provide individuals with skills, knowledges (sic), and attitudes for initial entrance into, and advancement within, occupations or groups of related occupations requiring a relatively high proportion of manipulative skills." as distinquished from technical education, "... in which success is dependent largely upon technical information and understanding of the laws and principles of mathematics, science, and technology (Wisconsin Board, 1970)."

Veblen observed over half a century ago already that the vocational student has a single-minded determination "to make much of all things that bear the signature of the 'practical'," that is "useful for private gain... (1957)." Miller observes that typically the student "...brings to vocational education a consistently high level of motivation. His purpose is generally clear and the rewards for effort are fairly visible (1964, p. 11)."

Such clarity of motivation is both a boon and an obstacle to the reading instructor. It brings to the teacher clearly defined objectives to which reading instruction can be related, but often the student so narrowly defines his occupational goal to leave no room for all the reading skills required in coping with the burgeoning changes and innovations of modern business and industry. Silberman points out there is nothing practical in an education which prepares workers for the work-a-day world as the student envisions it today. To be truly practical "... an education should prepare them for work that does not yet exist and whose nature cannot be imagined (1971, pp. 113-114)."

VOCATIONALLY ORIENTED READERS AT MATC

Generally, the vocational student comes to reading believing there is no place for the trained worker who does not have a salable skill, strongly convinced there definitely is a body of content which is peculiar to the occupation he has chosen and that traditional education is of slight value.

Vocationally-oriented readers at the Madison Area Technical College (MATC) share this characteristic. They range roughly in age from the late teens into the middle forties, may be high school dropouts, recent graduates, or those who are beginning vocational training after a lapse from school of several years. All students at MATC can elect to take a basic, a high school, or a post-high school reading course.

CHALLENGE TO READING INSTRUCTION

The broad objective in assigning academically weak students to the reading-study skill laboratories was to lead them on a new academic path, to attempt to prevent, what Riesman calls, the recycling of failure. Riesman charges that we, as educators of adults, have a responsibility "to do more than reproduce failure for these students at an adult level (1971)." This is perhaps the basic challenge facing instructors working with the vocationally-oriented reeader -- teaching the student to think in a literate world which is foreign to him, a world for which his background has not prepared him. Reading is not seen by the student as an integral part of his education. Doing the job, not reading about it, is penultimate. The ultimate is making money.

Educators, in contrast, envision a larger role for education in the world of work. They see general studies as essential to education because it is, "A way of helping individuals grow in basic human intellectual skills, in social understanding, and insight, which transcends immediate application to a specific job (Miller, 1964, p. 2) ..." Restating this objective in terms closer to the vocational student, Wessels (1971) tells vocational and technical students at MATC, what we teach here is what will help you *get* a job. What is taught you by general studies will help you *keep* that job.

SCOPE OF READING INSTRUCTION

At MATC reading test scores are used to estimate where reading instruction should begin as each student begins work. The reading instructor is alert to continually discover more about the student's ability and, very importantly, to help the student become more aware of his own strengths and weaknesses. Hopefully, preparing him to become self-sufficient so he can modify his training to meet newly arising demands in the world of work. Making the student aware of his reading skills provides an opportunity for him to discover which reading skills are most needed for vocational development.

Individualized Instruction

Teaching reading to vocationally-oriented students, as we have seen, presents a Janus-faced challenge. The first is to have the student become fully proficient in basic skills. Wherever the student is, the reading instructor will select individualized reading material to begin developing reading skills at this level. Development of reading skills follows a scope and sequence ranging from vocabulary development through paragraph reading to critical analytical reading. Control of reading skills through the most reasonable sequence, making adjustment for student differences, is the major contribution reading classes make to an instructional program.

Secondly, the student must be given practice in applying the reading skills to other classes as well as to the world of work and leisure. For, "The same material that is used to give adults information and pleasure may also be used to improve their reading skills(Smith and Dulin, 1971, p. 65)."

Reading instructors are already familiar with published materials available for individualized instruction. And, all realize that individualized reading laboratories and materials alone are not enough. We have observed, at MATC, that students tend to become lonely when working only with these materials. Independence is not one of the qualities used to describe most academically weak students. Perhaps, if many of them had earlier developed habits of independence, they would not be reaching their late teens with inadequate reading skills.

Therefore, at MATC, all reading classes include a variety of materials selected to balance individual work with classroom discussion and group practice. Group participation is encouraged by a common text-workbook in fundamental reading skills and vocabulary. Individualized instruction is effected through multi-level paperbacks, reading laboratory practice, controlled readers, and supplementary workbooks from which portions are selected to give reinforcement where needed.

However, as we have seen, the vocationally-oriented reader has an all-comsuming interest in the job which he expects to get upon completion of the program he is taking. Often he has selected a community college because he has been turned off by the academic life as he perceives it. He is older than the student encountered in public schools. He has had more of life's experiences. Consequently, he is more rigidly certain what he wants. But even with this certainty he may not actively apply classroom learning to his world of work. For him, as well as for all students transfer does not occur automatically. When a reading class or laboratory is grouped by students from only one or two vocational areas, "Regular curriculum materials – basic and supplementary texts – can be used as vehicles for reading instruction in each content area with teachers showing students how to become successful readers of the required materials (Herber, 1970, p. 11)."

When practicing with such materials in a reading class, the instructor will develop vocational independence in each student by having each scan and /or skim content sources for answers to self-developed survey questions. For teaching reading in content areas is, perhaps more than anything else, helping the student to ask incisive questions of reading material in a way which will enable him to formulate readily remembered, practical answers.

What is practical to him in school is what will help him get through his tests and what he thinks he will need on his job. Questionnaires sent by our student services department reveal that graduates in the first year or two in the work world find vocational subjects have been of the most help. However, follow-up questionnaires reveal that after they have been on the job for a few years, general study courses are reported having been most helpful. Therefore, it is requisite that content materials used in reading instruction draw not only from assigned textbooks but also include related sources found in college libraries, i.e., magazines, journals, handbooks, special guides, statistical reports, etc.

Using the library also provides opportunity to assist students in surveying and applying information available from related introductory texts, programmed handbooks, and audio-visual aids which can help renew course prerequisites when the student finds he has a deficiency. The wide range of abilities and the wide variation in preparation which students bring to vocational programs makes it essential that each becomes proficient in using remedial resources. Remediation is most effective when the student's survey and question preparation for reading reveals a deficiency. Waiting until after a test is given, particularly if it is a six-weeks exam, may be too late.

The library at MATC has an introductory session on using available specialized occupational references for each vocational program. It is the reading instructors' responsibility to see that the students become proficient in the use of these materials.

When practice with content materials raises questions which cannot be clarified by available resources, the reading instructor will see an answer is obtained from the person most qualified to handle that question, the vocational teacher. An answer may be requested directly from the vocational teacher or through a student assigned to report back from the instructor.

Reading in the Vocational Classroom

Inviting the reading instructor into the vocational class and laboratory is a valuable part in teaching the vocationally-oriented reader. First, such an opportunity enables a bridge to be spanned across the separation which exists between various classes. Second, extension of the invitation shows students that reading is a real part of the world of work.

By observing the reading instructor in the vocational classroom, the vocational instructor will obtain ideas for pre-reading questions which will help students tackle new assignments. Reading instructors will come away from such periods with a realistic idea of which reading skills should be emphasized in reading classes taken by vocational students. Also, team teaching will enable vocational and reading instructors to cooperatively write exercises which will make relevant the reading skills being taught.

Reading in General Studies Classrooms.

To give dimension and flexibility to a student's knowledge, vocational programs contain general study courses which usually include, even in one year diploma programs, mathematics, science, communications, and human relations. Problems found in vocational classrooms are also found in general study classes, i.e., wide range of abilities and interests, lack of basic skills, preparatory courses which over-over-prepare a student for some course aspects, etc. To cope with these problems, MATC is considering undertaking multi-level instruction in some first semester, introductory courses. Under the proposal each section composing a course will have the same final objectives. Students in the lower sections will work more slowly through literal and interpretive course question; while, the upper sections will more quickly cover the literal and interpretive aspects of the same course concentrating on developing skills in applying the content of the course. At the end of the semester, students receiving adequate grades would go on to the second semester of the course. Those receiving lower grades would be strongly encouraged to see student counseling. With the counselor, the student would go over his past academic record, standardized test results school performance and present family-personal situation. From a discussion of such matters, he and the counselor could decide if the student were to select another field in which he might more readily attain proficiency, or to continue in the same program with some personal or curriculum adjustments.

REFERENCES

Herber, H. L. *Teaching reading in content areas.* Englewood Cliffs: Prentice-Hall, 1970.

Miller, H. L. *Teaching and learning in adult education.* New York: MacMillan, 1964.

Riesman, F. Unmet needs in adult education—the under-educated adult. Paper presented at Wisconsin Adult Education Conference, Madison, July 1971.

Silberman, C. E. *Crises in the classroom.* New York: Vintage Books, 1971.

Smith, R. J., & Dulin, K. L. Making adult reading programs truly adult. In F. Greene (Ed.), *Reading: the right to participate.* National Reading Conference 20th Yearbook. Milwaukee: the Conference, 1971. Pp. 60-66.

Strang, R., McCullough, C., & Traxler, A. E. *The improvement of reading.* (4th ed.) New York: McGraw-Hill, 1967.

Veblen, T. *The higher learning in america.* (Reprinted) New York: Hill and Wang, 1957.

Wark, D. M. Twenty-five years of research on adult reading. In E. L. Thurstone & L. E. Hafner (Eds.), *Philosophical and sociological bases of reading*. National Reading Conference 14th Yearbook. Milwaukee: the Conference, 1965. Pp. 218-223.

Wessels, D. Personal communication to Schewe, August 24, 1971.

Wisconsin Board of Vocational, Technical and Adult Education. *Mission Statement*. (Rev.) Nov. 1970.

Wisconsin Statutes: 38.18.

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THE PROFESSIONALLY-ORIENTED READER

In describing a particular type of instructional program in reading deemed appropriate for any given group of learners, at least five points appear to me to be essential: a clear statement of exactly what group one is concerned with, along with some set of criterial characteristics defining that group; a clear elucidation of the particular goals with which members of that group typically approach the instructional program; an enumeration of the particular reading skills membership in that group demands or calls for; a recognition of the particular types of reading materials usually encountered by members of that group; and finally, from the teacher's point of view; a consideration of how various aspects of instructional methodology–evaluation, presentation, etc.–will probably differ when directed to that particular group rather than to another. These questions, then, will form the pattern of this paper:

Who is the professionally-oriented reader?
What does he want and expect from a reading class?
What reading skills does he need?
What types of reading materials does he regularly make use of? and
How does a teacher treat him differently from how he'd treat another type of reader?

DEFINING THE GROUP

Of all the categories of learners dealt with in this symposium this category is probably the broadest and the most in need of definition, since over the years professional has come to be used by practically every identifiable occupational group. This, we have professional cab-drivers, barbers, waiters and waitresses, and even garbage-collectors. Clearly for describing a certain population in terms of its reading needs and then differentiating those needs from the needs of other groups, a finer, though perhaps less democratic, delineation is needed. Therefore, I would propose the following criteria: In terms of our purposes, a professionally-oriented reader is: a college or university graduate; a relatively self-directing practitioner of a traditionally accepted profession, or operating in business or industry at an essentially managerial or supervisory level; already relatively successful at meeting at least the basic communicative needs of his occupation, and free from any needs for true remediation in reading, at least in terms of age-normative standards.

These last two points, of course, are the crucial ones; the professionally-oriented reader is ordinarily not a poor reader (and often even a relatively good one) but rather one who needs, because of the particular demands of his work, to be an even better one. This is not to say that we don't occasionally find an exception to these rules; some individuals do at times rise vocationally to the point of meeting the first three criteria but not the final two. My point is simply that when these exceptions do turn up in our classes, we must treat them differently from the ways suggested in this paper.

DEFINING THE GROUP'S GOALS

The most fundamental expressed need of this group is almost always the same: time is what they feel most short of and speed-reading is what they're after. It's been said that the modern business and professional world runs on paper. Business communication, the sharing of professional expertise, and simply the routine demands of keeping up professionally today, have created an information explosion, and the fall-out of this explosion almost always reaches the desk of the busy professional or executive via the medium of hard, cold print. Almost invariably, then, this is the first felt goal of the professionally-oriented reader: how to meet the reading needs of his daily work faster, more efficiently, and with as little waste motion as possible. (See for example, Dulin and Otto, 1970.)

For most professionals, however, speed is not their only goal. In addition to being members of their particular occupational groups, they're also citizens, consumers, and contributing participants in the civic and cultural affairs of their communities. Thus, their needs at these points overlap those of all other adult readers: a broadened range of general reading skills; a deeper, more expressive vocabulary: and a multitude of the same locational, organizational, and retentional skills needed by all other self-managing members to a twentieth-century democracy.

In sum, then, the goals are always at least dual; high general literacy plus a facility for creativeness of expression; sound general comprehension skills plus increased efficiency of rate; a broad general vocabulary plus an ability to deal effectively with the specialized technical jargons of their professions; and the specialized reading skills needed by all adult readers plus an ability to deal effectively with the specialized reading materials used within their particular fields.

DEFINING THE GROUP'S NEEDS

Probably the best way to proceed at this point is to treat the professional reader's needs in two stages: first, as a member of the managerial class of society generally; and second, as a practitioner with particular workaday problems involving reading.

Professionals almost by definition are the social and civic leaders of their communities. Most local governmental bodies, most organizations for civic betterment, and most community organizations for cultural, educational, and social progress draw their support primarily from the ranks of professionals; so a while body of reading skills are needed here. To be a good Jaycee, an effective school-board member, or simply an active involved citizen, the professional reader must be able: to read rapidly enough and well enough to keep up with current scientific and technological advances; to use the community's informational resources to find the answers to progmatic civic and social problems; and to separate fact from opinion in the reading matter he utilizes in deciding what public policies to support or oppose. But beyond all this still lies the professional's specialized workaday life.

Here, it seems to me, is where we can do the very most for the busy professional in terms of helping him meet the reading problems he faces daily. The typical professional, since he's usually been highly trained in a particular academic or technical specialty, has generally passed through an intensive apprenticeship in the accumulation and mastery of much finely-detailed and highly specific factual information. To do this, during his student years, he's often had to adopt a reading style far too slow, far too painstaking, and far too meticulous for the busy pace of his present life. Now, rather than memorizing facts and figures for specific recall, he must make ongoing judgments based on a big-picture approach. The physician, for example, instead of memorizing the names of muscles, nerves, and bones as he did when preparing for his examinations back in medical school, must now simply deep up on the new ideas he encounters in his journals. Where before he had to know all the details, since he was going to be tested on them, he can now look back when the need arises. His task now is the general comprehension of a great deal of material, rather than the specific mastery of a lesser amount.

Luckily, this task is facilitated, once the reader knows how to go about it, by the standard formats of most technical materials. Journal articles, contracts, lists of building specifications, and legal documents almost always have a regular pattern. The reader who makes use of these patterns can handle the overall materials much more rapidly and efficiently than one who tries to read them in his old, regular, student way of reading.

READING MATERIALS USED BY THE GROUP

In terms of the professional reader's first identity, his membership in the leadership class of his community, the materials he needs to be taught to use are pretty much the same across all the professions: books, serious magazines, local and regional and national newspapers. To keep up with this sort of reading, he needs: to have a good, solid, relatively-high base reading rate (probably 500 to 600 words per minute or more); to know how to survey, skim, and otherwise deal rapidly with print in a selective, efficient way; and to know how and when to re-read carefully, how and when to make use of inference, and how and when to locate additional information when necesasry. In terms of his second identity, that of the specialist practitioner, the materials he needs to deal with are very specific to his field: journals, professional magazines and newsletters, and highly specialized reference materials.

For the instructor dealing with groups of professional readers, the best way to proceed in this area is the direct one: to have his students bring to class samples of all the reading materials they deal with in their work. In some instances, having each student keep a daily log of his reading activities is a good system. Sometimes simply discussing the problems in class and then soliciting sample materials is enough. If the teacher knows in advance exactly what specific groups of professionals are to be in his classes (as is often the case when special classes are set up through professional organizations or university extension centers) a good deal of anticipating can be done in advance. Those planning the programs can interview members of each particular group ahead o f time and arrange to have work-relevant materials on hand when the students arrive. This, of course, is a definite advantage to the instructor, since he can then examine these materials in advance, rather than having to perform on the spot as the students hand him the sample materials they've brought to class for the evening. Either way, it's important that this aspect of class-organization be truly tailor-made for the group. To facilitate transfer of training in any learning situation, it's important that the practice situation is as much as possible like the later application situation. In teaching adults, where we're changing old behaviors (a much more demanding teaching task, actually, than the forming of new ones where none existed before) face validity is particularly crucial. For a good session-by-session description of how this can be done, Ahrendt's (1971) course outline is a fine guide.

ADAPTATIONS IN METHODOLOGY FOR THE GROUP

This final point, the degree to which we go about teaching the professionally-oriented reader differently than we would others, is one on which many differences of opinions exist. Some teachers, in fact, would claim that they do things little differently when teaching professionals. "I individualize for all my students!" they would say. Most teachers I've discussed this with, however, do mention special points of procedure and particular points of teaching emphasis. Summarized, they make up the following ten guidelines:

1. As noted above, *use teaching-learning materials as professionally and personally relevant as possible.* Not only will this facilitate better transfer of training, but the face validity of such materials to the student will also be very motivating.

2. In other words, *let your individualization show.* The more visibly adaptive your program is, the better. Since professionals are specialists themselves, they expect, more than other groups, to get highly individualized treatment when they, themselves, are the clients and consumers.

3. At the same time, *don't let the personal nature of this content pull you off the track.* High-interest material, particularly when it comes from the group's own field of specialization, can cometimes act as too ready a springboard for individual students' ego-trips into their own experiences, triumphs, and personal biases. Keep in mind that reading the material at hand, rather than refuting its arguments or demonstrating personal expertise regarding it, must remain the major focus of the group's instructional activities.

4. Despite what we've said in our general criteria above, *don't be too assumptive about basic skills.* When in doubt at all about the group's (or a particular member's) ability to deal with a basic skill review it. It's better to reinforce an old skill briefly than to inadvertently omit it through being afraid of condescending to the group.

5. So, *teach general vocabulary as well as specialized.* Because of the narrowness of much professional training, even high-educated specialists sometimes have significant gaps in their basic vocabularies. Don't, however, dwell too long on this if it appears to be unnecessary for a particular group.

6. *Use rate as a bait,* but move as quickly as possible to the concept of flexible reading rather than simply fast reading. As noted above, speed-reading is what often draws the professional to a reading class, but mere drill on base-rate is not enough. Rate-of-comprehension, not rate-and-comprehension must be our approach; don't let an overly-eager class completely separate the two.

7. *Be egalitarian in your relationships with individual students.* Not only must you not let yourself be condescending, since treating professional-level adults like children is the fastest way there is to drive them away, but also don't let the group's outside-of-class professional pecking-orders move into class relationships. Student A may be B's boss all day down at the office, but in class he must operate as a peer and an equal, particularly during recitation and discussion sessions. (For more, see Smith and Dulin, 1971.)

8. In this vein--your own relationships with members of the class--*watchout for blind followers.* Many high-specialized professionals (medical men and specialists in the hard sciences, in particular) are used to

situations in which there's always one, single, exactly best way of doing things (Dulin and Quealy, 1971) and they expect to find this in reading, too. Over and over, you'll have to stress that they, not you alone, must continually evaluate and re-evaluate their own reading strategies. Though this sort of thinking will be foreign to many of them, it's crucial that it be emphasized if your goal for them of ultimate independence in reading is to be achieved.

9. Particularly if your course takes place after hours, as most adult reading courses do, *don't forget the fatigue factors operating.* Try to break your class-sessions into several short sections, rather than one or two long ones. Novelty and change are great moderators of fatigue, and they're particularly important when your students have put in a full, demanding day before coming to class. Personally, I always try, too, to have at least one "special" drill, game, exercise, or activity each session that's entirely different from anything we've done before and, if possible, fun as well as instructive. Context-clue guessing-games, tricky sentence-reading tests, and riddles, puzzles, and games demanding inferential-reading ability, are all good for this sort of thing. (Also see Smith and Dulin, 1971.)

10. Finally, *don't forget theory.* Professional-level people want to know why certain techniques work, as well as how. Include a conceptual explanation of each new reading strategy you present, as well as an operational one. This gives the student a general pattern of attack he can adapt from as needed, rather than simply use as long as you're directing him. With the professionally-oriented reader, perhaps more than any other type of reader discussed today, our goal must be the development of individual independence in reading; and only by giving him a good personal grasp of the theoretical bases of efeective reading can this be done.

SUMMARY

The purpose of this paper has been the description of a reading program appropriate for the professionally-oriented reader. A definition of this particular type of learner has been established; his particular goals and needs have been examined; the special types of reading materials he deals with daily have been outline; and a set of methodological guidelines have been offered. The professionally-oriented reader uses reading both as a personal tool and as a professional tool, and both types of reading-need must clearly be provided for in the planning of his instructional program.

REFERENCES

Ahrendt, K. M. An adult reading improvement program. *Reading Improvement*, 1971, *8* (1), 7-10.

Dulin, K. L. & Otto, W. Backgrounds, felt educational needs, and expectations of adults seeking advanced training in reading. In G. B. Schick & M. M. May, (Eds.), *Reading: process and pedagogy*. National Reading Conference 19th Yearbook, Vol. I Milwaukee: the Conference, 1970, Pp. 116-121.

Dulin, K. L. & Quealy, R. F. Diagnosis and prediction of reading performance at the adult level. In F. Greene (Ed.), *Reading: the right to participate.* National Reading Conference 20th Yearbook. Milwaukee: the Conference, 1971. Pp. 53-59.

Smith, R. J. & Dulin, K. L. Making adult reading programs truly adult. In F. Greene (Ed.), *Reading: the right to participate.* National Reading Conference 20th Yearbook. Milwaukee: the Conference, 1971, Pp. 60-66.

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A LEARNING CENTER FOR CAREER-ORIENTED STUDENTS

The majority of the students who attend New York City Community College are vocationally and technically oriented. Many have participated in previous remedial reading situations, and have felt the stigma of rigid adherence to grade level scores often based on out-dated test items relying upon irrelevant vocabulary and comprehension selections. A remedial student's isolation and identification as a "problematic reader" often result in highly negative reactions to reading programs. Reading specialists, by continued use of generalized reading materials and exercises have ignored the inherent motivation a student brings to readings in his chosen field. The immediate need of the Junior College student is the mastery of those tools necessary for survival within a content area. This will best prepare the student for his immediate curricula needs, continued education, and career advancement.

DESIGN

The aim of this program is to offer supportive learning methods and instructional aids for the career curriculum to be implemented through learning centers; a course dealing with learning strategies for all freshman students; and tutoring and instructional support.

The learning center does not classify students in terms of good and poor readers. Instead it seeks to serve all students through the availability of appropriate course aids such as: transparencies illustrating important concepts for classroom teaching; overlays illustrating step-by-step completion of course requirements; textbook highlighting of key words, concepts, formulas, and symbols; and, video slides and accompanying tapes of teachers' lectures.

It is suggested that the course offered to all entering freshmen within a career division apply relevant learning strategy to the students' curricula. Students are programmed by department. Each class is schuled to meet two hours per week. These classes are taught by a reading teacher who implements innovative materials and techniques. Additional hour(s) are arranged for tutorial assistance according to student needs. The curricula content inherent in this discipline provides a sound basis for assigning credit for this course of study.

Tutorial and instructional support are provided for the total population within each department. Student tutors must have an overall index of 2.0 and a B or better in the subjects they tutor. In the past, the main weakness of tutorial instruction has been the attempt to function without appropriate materials. Tutors have too often been exposed to tutor-tutee situations for which they have not been prepared. This program provides sessions for tutors which include training in the use of newly developed materials, the nature of the tutor-tutee relationship and guidelines for the evaluation of progress.

Within the structure of individual tutoring sessions, seminar groups organized according to common tutee needs, and within-the-classroom assistance, tutors can maintain effective peer dialogue, utilize innovative materials developed in the resource center and aid in the development of pappropriate learning supports. These materials are available in the learning center at all times for individual student use therby providing the opportunity for learning without the pressure of a "50 minute unit of time."

FUNCTIONS OF LEARNING CENTER PERSONNEL

It has long been recognized that many services have been available to students. In the past each service has tended to operate as an independent unit. There have always been faculty members willing to spend extra time with students. Counseling programs have also played an important part in a student's life. Reading teachers and labs have been available and some form of tutoring has been offered. This program makes use of the synergistic effect of the simultaneous input of all these services.

The prime function of the program coordinators is to establish a climate where successful, interdisciplinary communication takes place among faculty, counselors, reading teachers, tutors and students.

To facilitate implementation, the program coordinators must be perceived as "helpers" to the faculty. Resistance to outside "expertise" and self-evaluation must be overcome to enable innovative materials, instructional aids and student learning supports to be developed. Through seminars, demonstration lessons, and conferences, the program coordinators confer with career faculty members to develop an awareness of the applicable reading and study skills to their curricula. This culminates in a multi-level approach to the subject through the use of readability procedures for maximum individualization of required readings, instructional aids for student reference in the learning center and appropriate audio-visual materials for classroom use.

Close cooperation with guidance counselors must be maintained in order to provide the means for early identification and follow up of student needs. The counselor builds upon his personal contacts with the students in each department and recommends those students who can qualify as tutors, refers students who are in need of additional support and follows through teacher referrals for guidance.

SUMMARY

Instead of dealing with generalized material and contrived exercises, all of which place on the student the onus of responsibility for transfer of skills to specialized course curricula, the aim of this program is to function within the context of the student's chosen vocation - the area of highest motivation. Educators need to provide a program of career competency skills for all students within the setting of a proper emotional climate for realistic learning. This strategy seeks to foster learning which culminates in the necessary preparation for future placement and occupational advancement.

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THE ROLE OF COMMUNICATION SKILLS IN THE PRE-EM PROGRAM AT GENERAL MOTORS INSTITUTE

General Motors Institute is an accredited degree-granting college offering bachelor degrees in Mechanical, Industrial, and Electrical Engineering, and also in Industrial Administration. It is operated on the cooperative plan, in which students alternate six weeks of academic work at the Institute with six weeks of work experience at sponsoring General Motors units. Enrollment at present is approximately 3000 students although only half of these are in school during any given six weeks section. To qualify for admission, students must be high school graduates who have completed four years of high school mathematics and a year of chemistry and physics with high academic standing and be sponsored by a General Motors plant.

Within the past year or two, we have become increasingly aware that GMI, because of its high entrance requirements, was not reaching a group of students who have potential value to General Motors as dengineers or managers. That is, their educational backgrounds were such that they did not meet the formal entrance requirements for the established Engineering or Industrial Administration programs. For this reason, in the fall semester of 1971 a pre-freshman program called Pre-EM was initiated. It consists of a one-year program, also on the cooperative basis, with courses taken on a non-credit basis. Eligibility for this program required the student: be a high school graduate; have had algebra and plane geometry; be recommended by their high school counselors; show a strong interest in the program.

In the two semesters of the program, the students will take the following courses.

Mathematics, which covers the algebra, trigonometry, and analytic geometry necessary as prerequisites for the freshman calculus course.

Chemistry, which covers high school chemistry, a prerequisite for either the Materials Science course of the Engineering curriculum or for Physical Science of the Industrial Administration curriculum.

Physics, which covers high school physics which is a pre-requisite for the physics course they will take in the established program of either curricula.

Manufacturing Technology, which consists of graphics for industry, and a series of experiences in machining, foundry, heat treatment, welding and plastics.

Communication Skills, a one-year sequence of courses designed; to develop skill in reading, comprehension, and study habits; and to develop competency in writing, speaking, and listening.

It is expected that this program of study, plus the work experience in General Motors units, will prepare these students for admission as entering freshmen the following year. However, we realize that there may be some students who, for various reasons, do not achieve this goal. These students, if they so desire, could then become candidates for hourly or salaried positions at their sponsoring units, although they are under no obligation to do so. In fact, it is quite possible that a number of these students will decide to go to some other school to complete their education. At the present time 55 students are enrolled in the program.

It is the purpose of this paper to discuss the Writing and Speaking-Listening Skills part of the program generally, and the first semester of the Reading and Study Skills Improvement course in detail.

RATIONALE

The rationale for including the Communication Skills in the Pre-EM program can be summed up in a sentence, namely that students are required to make effective use of the written and spoken word in many ways. For instance, Biggs (1971) speaks of literacy as being "an ability to handle thoughts or notions presented in the written word and, in turn, to present them in writing(p. 476)." As a second example, Pepper (1971) goes one step further by stating that the marginal student entering Wayne State University is required to take freshman English and a reading and study skills course before entering the regular class schedule. Also, we can take our own GMI requirements for the students in the established programs. Increasingly they are expected to write effective term papers, reports, and essay examinations. Moreover, they are required to report, both in writing and orally, on an extensive plant project assigned by their sponsoring unit before they can graduate. Thus, to help them meet these requirements, they must take two courses in communication in which both writing and speaking are emphasized. In light of all this, we felt that the Pre-EM students needed three communication skills courses: writing, speaking, and reading and study skills.

Further evidence of the need for communication skills training for these students was shown by information obtained about them prior to the start of the semester. Three approaches were used: The first, consisted of inviting all the students from the Flint area to have dinner with us at GMI. During this meeting we talked to them about their high school courses that related to their skills in communication. The second approach was to obtain the grades they had received in their high school English courses as well as information on such courses as speech and foreign languages. The third approach was to obtain the SAT verbal scores and the composite ACT scores for each student and compare these with the same scores of entering GMI freshmen. The results of this comparison are given in Table 1.

Table 1

Mean and Median SAT (Verbal) Scores and ACT (Composite) Scores of Pre-EM Students and Entering GMI Freshmen

Scores	Pre-EM Students	Freshmen	
		Industrial Administration	Engineering
Mean SAT (verbal)	406.31	500	520
Mean ACT (composite)	15.76	26	27
Median SAT (verbal)	410	520	520
Median ACT (composite)	18.3	25	27

College admissions personnel might view these test scores for the disadvantaged students as unreliable indicators of their abilities. Nevertheless, these scores were the only objective measure available to us except for the grades in English for the four years of high school. It is possible that these grades are not reliable indicators, either, since the test scores and grades seemed to show little relationship. Thus, with limited factual information to use as a basis in developing course descriptions, objectives, and content, we realized that, once the classes started, changes might have to be made on a week-to-week basis or possibly even on a day-to-day basis.

COORDINATION OF THE COMMUNICATION SKILLS PROGRAM

As chairman of the Communication Skills program, it is my responsibility to coordinate the three courses. Because they are closely interrelated, I felt that we might best bring about their coordination in two ways: by weekly meetings of the faculty involved in the program; and by having the students read, write, and speak on a single topic in each of the three courses at intervals throughout the semester. For example, we might have the students read a selection from the *Autobiography of Malcolm X* (1966) in the Reading Improvement class, write a paper on this selection in the Writing Skills class, and talk about it in the Speaking Skills class. This technique, we felt, should help the students realize that the communication skills are an integrated process and not three unrelated entities.

With these considerations in mind, let us now take a look at the descriptions, objectives, and content of each of the courses in the Communication Skills sequence.

SPEECH-LISTENING SKILLS

In the Speech-Listening course each student will give informative speeches and study the principles and techniques or oral communication. These will be achieved, in part by using audio-tapes and audio-visual equipment, including videotape. Listening comprehension will be improved by means of programmed learning material in the Learning Center in the GMI Library.

The overall objective of the course is thus to help the students attain confidence in their ability to speak and to listen. Stated as behavioral objectives, by the end of the program the student is expected to be able to:

1. Describe the process of human communication
2. Recognize various forms of feedback, not only verbal but non-verbal and interpret their meaning.
3. Become sensitive to how he, as a speaker influences the attitudes of others
4. Learn how to make use of the fundamentals of effective speaking
5. Be able to articulate and pronounce words properly
6. Analyze a speech for its organizational elements
7. Critique a live message delivered by one of the mass media
8. Learn how to make use of various visual aids
9. Learn the fundamentals of interviewing
10. Improve listening skills and listening comprehension.

WRITING SKILLS

The Writing Skills course is designed, first, to help the students develop confidence that they can write with reasonable clarity and coherence. Later they will also have to show competence in the various types of writing they will be doing once they enter the Engineering or Industrial Administration program. The emphasis is primarily on exposition and persuasion, rather than on description and narration. The desired behavioral objectives of the writing course are these:

1. Complete a structured series of exercises to develop a systematic process of writing
2. Complete a number of essays showing coherence and suitable development
3. Write twelve short papers, such as laboratory reports, summaries of books, letters, and "creative" pieces
4. Plan, conduct, and report an independent study that requires the student to use the library facilities.

A structured, or step-by-step, approach to writing will be used with the students and the instructor will also work with each student individually.

READING AND STUDY SKILLS IMPROVEMENT

The Reading and Study Skills Improvement course is designed to improve the students' reading efficiency and study skills through the use of a series of specially designed reading and study exercises. The emphasis is on increasing speed of comprehension and reading flexibility, and on helping the students acquire techniques of effective study.

The desired behavioral objectives for the student in this course are:

1. Acquiring reading speed and comprehension comparable to entering GMI freshmen
2. Increasing understanding of various types of reading material especially reading in the sciences
3. Acquiring reading flexibility through the use of a wide variety of reading materials
4. Developing an adequate reading vocabulary by the use of programed vocabulary exercises
5. Acquiring efficient study habits utilizing notetaking, underlining, time scheduling, and the SQ4R (Smith, 1961) method of study.

Of these behavioral objectives there are two that are unique as compared with the behavioral objectives for students in the established programs. The first is the emphasis on acquiring reading skill in the sciences; the second is the time and emphasis placed on developing efficient study techniques.

TESTING PROCEDURE

Since little was known of the students' reading ability, it was necessary to administer diagnostic tests during the first week of school. This was also done in the other courses the students were taking. The timing, however, was unfortunate because the first section of students was overwhelmed with tests the first few days of school. As a result they became quite cynical and, in a few cases, actually bitter toward all this diagnostic testing. With the second section of students, therefore, we administreed the reading tests during the second week. Table 2 shows the differences (which may be due to this change in testing procedure).

It is possible that these significant differences in the mean reading rate and index were caused by factors other than test weariness and poor attitude. For example, the students in Section B were given more information concerning the course objectives and content, and more time had elapsed for the students to become acquainted with the professor.

Table 2

Means for Rate and Story Comprehension, for the Diagnostic Reading Test

Scores	Section A (first week) N=26	Section B (second week) N=27
Mean Rate	231 w/m *	265 w/m *
Mean Comprehension	65%	72%
Mean Index (Rate & Comprehension)	158*	180*

* $p < .05$

The Diagnostic Reading Test story comprehension section (DRT) was used to obtain a measure of the students' rate of reading. The California Reading Test was given to obtain an estimate of the grade level at which they were reading as well as a measure of their mathematics, science, and social science vocabularies. The Brown-Holtzman Survey of Study Habits and Attitudes was administered to obtain an appraisal of their overall study habits and attitude toward education.

At the end of the first six weeks different forms of the DRT have been administered. A different form of both the CRT and DRT will be administered at the end of the semester.

There are no comparable data on GMT freshmen for the CRT. For the Pre-EM students on this test, the Mean Total Grdae Placement is 12.1, with a range from 6.7 to 15.3. The DRT, Part 1, Form A, however, was administered to 125 freshmen students in 1970. Table 3 shows a comparison of Means and Ranges for 53 of the pre-EM students with this sample of freshmen.

The need for the Pre-EM students to increase both reading rate and comprehension is readily apparent for this table. Although the results are not shown in the table, it might also be worth mentioning that Part 3, Comprehension, of this test, also shows significant differences in scores.

Another factor noticed upon examining the results of the DRT was a close relationship between the scores on Part 3 of the DRT and the results on the Interpretation Section of the CRT.

Table 3

Means and Ranges of Pre-EM Students and GMI Freshmen on the Diagnostic Reading Test.

Scores	Pre-EM N=53	Freshmen N=125
Mean Rate	240.4	291*
Range	124–435	180–475
Mean Comprehension	69%	87%*
Range	15%–100%	35%–100%
Mean Index (Rate & Comprehension)	176	251*
Range	19–355	

*$p < .01$

At the end of the first six weeks, the midterm for GMI students, the first group of pre-EM students was given Form C of the DRT. Table 4 summarizes the results of Form A, given the first week, and Form C.

It is interesting to note that these increases in reading rate were achieved despite the lack of emphasis on reading speed during this period of time. However, the students were introduced to the reading pacers and allowed to practice with them for approximately two hours. The principal activity during this period was in developing of efficient study habits through surveying, reading, and underlining material from their chemistry text and other study materials. It is this emphasis that may have contributed to the increases noted between the first and last testing. A second factor might be the lessened anxiety toward the test situation itself.

In addition to the chemistry text, the following materials were used: *How to Read the Sciences* (Adams, 1970); *How to Study Effectively, Part I, Professors and Other Distractions* (Patterson and Christenson, n.d.); *Read, Underline, Review* (Wark and Mogen, 1970).

The second half of the semester will be spent on helping each student improve his reading in the content areas as well as in general reading. A number of standard reading manuals, including *Selections from the Black* (Spargo, 1970) and a number of paperback novels, will be used for this purpose.

Table 4

Means and Ranges for Section A Pre-EM Students on
Form A and Form C of the DRT

Score	Form A (Pre)	Form C (Post)
Mean Rate	231 w/m	282 w/m*
Range	124–435	197–457
Mean Comprehension	65%	69%
Range	15%–100%	15%–85%
Mean Index	158	176
Range	19–355	36–343

*$p < .01$

CONCLUSION

Let me stress that the Pre-EM program is experimental and has been in existence for less than one semester. Its continuation beyond this school year (1971-72) depends upon the reactions of the sponsoring units of General Motors, as well as reactions of the students themselves. GMI is doing everything possible to make those reactions favorable. For instance, the students are being helped with their adjustment problems by a highly competent black counselor. In addition, rap sessions are held weekly which the faculty are occasionally invited to attend. In short, every effort is being made to help these students feel that they are a real part of the student body.

Although it is always hazardous to predict future performance from incomplete evidence, the faculty involved in teaching the communication skills believe that most of these students will be ready to move to the freshman communication course by the end of the year. In fact, a number of them are ready to do so now.

REFERENCES

Adams, W. R. *How to read the sciences.* New York: Scott Foresman, 1970.

Biggs, B. P. Literacy and higher education. *Phi Delta Kappan,* April 1971, *3,* 476-478.

Games, P. A., & Klare, G. R. *Elementary statistics: data analysis for the behavioral sciences.* New York: McGraw-Hill, 1967.

Malcolm X, *The autobiography of Malcolm X.* New York: Grove, 1966.

Patterson, H. O., & Christenson, R. J. *How to study effectively* (Part 1, Professors and other distractions.) Flint: General Motors Institute, n.d.

Pepper, R. S. Reading improvement in a large urban university. In D. M. Wark (Ed.), *College and adult reading.* North Central Reading Association 6th Yearbook. St. Paul: the Association, 1971. Pp. 1-13.

Smith, D. E. P., Haag, C., Ironside, R. A., Nagel, R. E., Cross, A. R., Sayles, D. G., & Valusek, J. *Learning to learn.* New York: Harcourt, Brace and World, 1961.

Spargo E. (Ed.), *Selections from the black.* Providence: Jamestown Publishers, 1970.

Wark, D. M. & Mogen, M. *Read, underline, review.* New York: McGraw-Hill, 1970.

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INDIVIDUALIZATION OF INSTRUCTION IN A READING AND STUDY SKILLS CENTER WITH JUNIOR COLLEGE AND OR OPEN DOOR POLICY STUDENTS

The open door policy concept in junior colleges and other institutions of higher education attracts many students from socio-economically deprived environments. This student may rank 99th in a high school class of 99 and may have very little intrinsic motivation for academic proficiency, but he does have a very realistic outlook. Education beyond high school is essential for his own advancement in a very materialistic, real world. This student has generally followed the majority of the rules in school: attended classes; turned in a minimum of assignments; not caused any major trouble; and in many cases excelled in some extra-curricular activities in sports or music. Now, he applies for open enrollment college entrance and is accepted.

RESPONSIBILITIES OF THE READING AND STUDY SKILLS CENTER

The Reading ana Study Skills Center at Kentucky State College was established to assist the students who are unable to read well enough to be placed in the regular English classes. It is a responsibility of the Readign Center to provide these students with the necessary skills to obtain at least a functional instructional reading level.

The student is exposed to the idea that college reading and study involves complex skills which may be developed through instruction and practice. These skills cannot be separated from the other communication skills, such as listening, writing and speaking. The student's own texts and assignments are used as well as specific skill building materials.

The classes are limited to twenty students per section with at least two instructors and the director available at all times. Although this implies at 1:7 ratio, the student receives the individualized attention he so desperately needs. By emphasizing individual differences it becomes possible for the student to ascertain the necesaary skills which hopefully make him a much stronger contender for academic achievement.

The center assumes the responsibility of accentuating the students' positive accomplishments. This takes precedence over any lack of achievement. Such simple tasks as counting the correct answers, not the incorrect, or congratulating the student over consistent correct usage of a principle in grammar, rather than finding another error, just as glaring, in the same written assignment are examples. A student at this level has already experienced a significant amount of failures. By emphasizing his positive attributes, the instructor helps create a more favorable learning environment. Some students don't need specific skills as much as they need positive reinforcement of their capabilities and support from a faculty member.

Individualization can be accomplished with approximately the same staff and faculties as group instruction if the personnel are willing to orient themselves toward the following goals:

1. Thoroughly knowing the available materials
2. Achieving a high degree of flexibility
3. Using properly structured, self-instructional skills materials
4. Knowing the tentative potentials of the students
5. Being available as a resource person the entire time the student is in the center
6. Establishing realistic goals for the students successful completion of the assigned task.

The personnel could be graduate assistants, volunteers from the teacher training program, peers who have demonstrated academic proficiency in a specific discipline or skills area, as well as the regular faculty members.

SCHEDULE

The Reading and Study Skills Center required course is a one year course with classes meeting twice a week during the two semesters. The students may make any combinations of the two periods but are recommended to try and schedule their classes so that they are taking the course at the same time for both sessions. Volunteer students may make any combinations and arrangements that are agreeable with their schedules. There are usually 12 or 13 sections to choose from. These multiple sections allow the students a great deal of flexibility in relation to their other classes. Another positive feature of the Center is its open door policy for any student, staff or faculty member. There is a constant flow of volunteers, as well as the students from whom the course is a requirement.

PROCEDURE

Upon attending the first class session the student fills out a registration form. The form contains information about the student, test scores, the student's evaluation of his problems, space for the instructor's comments and the eventual evaluation. All the students are then given the Nelson-Denny Reading Test.

The test is scored and the student has a conference with a staff member to discuss the results. In the majority of cases this is the first time the student has had the opportunity to discuss the results of a standardized test. The instructor discusses the student's tests and indicates to the student the area which should receive the greatest amount of concentration. The other areas of concentration are also discussed and the instructor and student work together to establish realistic goals in fulfilling the void in the student's skills. The instructor, the director and the student decide if any further testing is necessary.

Goals or objectives are written down and refer specifically to each student. The statement refers to a learning process and to specific content. For example, given an assigned chapter from world history, you will after weeks of training, be able to distinguish with _ % accuracy the main ideas from supporting details in the world history text in contrast to your present accuracy of _ % . The student and instructor select the percentages and time allocations. The student knows where he is heading, what degree of perfection he is striving for, and how he is going to get there. Students keep detailed charts on their work in the skills materials and in their own text materials. They can see day by day where and how they are achieving and in what skills or discipline area they need more concentration as well as the degree to which they are reaching their goals.

A work folder is then made with a tentative outline of desirable areas of skills improvement. The instructor emphasizes that the outline may alter frequently depending on the students degree of achievement and the difficulties encountered in the student's regular course work. It is further emphasized that the student is expected to do from three to five activities per class session. Most of the students realize their attention span is short and they welcome varied approaches to insure that they have obtained the proficiency of a given skill. The student rather enjoys being responsible for his own learning.

Emergency cases exist where a student needs to discuss a specific problem more than improve his skills. Provision is made for the student to forgo the intended material on the day's schedule and concentrate on his felt need for a specific course. For example, a student might have a great deal of trouble with the vocabulary in biology or history. The instructor alters the student's material for that session to include the vocabulary (pronunciation via the language master), definitions (by means of a glossary obtained from the discipline area, a copy of the textbook, and handouts or lab notes from the instructor). Instead of a vocabulary lesson *per se* the student will have available to him the vocabulary of the subject matter where he is encountering difficulties. The Reading and Study Skills Center has a fairly representative supply of information concerning every freshman course on campus. This has taken five years to accumulate and to have available in an accessible form for the student. The center is not a tutoring service, but when a problem arises it is handled immediately and the student is then repatterned toward his original objectives or goals.

The student's work is appraised daily with a written note and suggestions for follow-up material. The overall objective may remain the same, but the daily goals and objectives may alter in accordance with the learning that is being demonstrated. Since the student is the one responsible for his own learning, and the instructor merely the facilitator, the resource person-and or the consultant, the student soon becomes quite adept at evaluating whether he needs more time on inference, main ideas, skimming and scanning or some other more specific skill. The student writes notes back to the instrucors concerning the work or his progress. These are sometimes quite caustic, "Today was just wasted," but more frequently they are on the positive side, "I feel I need more practice in taking lecture notes."

When the notes or conferences delve deeply into areas where extended counseling or guidance seems appropriate, the students are referred to the Counseling Service.

In five years we have grown from a self-contained Reading and Study Skills Center to a more global, campus-wide service. There is an informal air of studious academic achievement and acceptance. With this approach the instructors have time to work on adapting or adopting materials, to hold short conferences during the class period at every studen s's carrel, and to be there when needed. Every student receives some positive overt attention during each class session. The instructor's availability and interest appears to make a vast difference. The overall effectiveness is demonstrated by the student's enthusiasm toward self-improvement. In their spare time many students return voluntarily. Some have returned years after year when they have felt the center could help them academically.

Only two grades are given, Satisfactory or Unsatisfactory. To receive a satisfactory grade a student must do three things: come to class; take the tests we ask him to take; try and do what we ask him to do.

EVALUATION

The charts from the treatment section indicate to the student how well he is achieving his goals. Keep in mind that the instructor is continually assisting the student in writing realistic goals. Standardized tests in an alternate form are given at the end of each semester. Many of the students make fantastic gains, others only marginal ones. At the end of the academic year gains have been made as high as five years eight months and as low as two months. The students are also given the opportunity to evaluate the program and any material they have used. This is a voluntary, unsigned evaluation sheet with space available for any comments.

SUCCESS OF THE PROGRAM

Each year a nationally known authority in reading is brought in to evaluate the program. Because of the high results of these evaluations the program has been refunded for five years. This past January a proposal was written for an extention of the project for the next three years. It was approved.

Students that started college four years ago, reading at ninth grade level or below, were in the graduating class of June 1971. Perhaps all the students needed was the kind of help the Reading and Study Skills Center had to offer; perhaps just to believe in themselves and or to have someone believe in them. Of course, it required a great deal of back-breaking academic work. But they did succeed!

SUMMARY

There appears to be definite need for an individualized reading and study skills approach. What has been presented is a description of one such program which has been successful not only in the institution where it originated but also at several other institutions.

It should be noted that the institution be aware of the limitations of federal funds. Allowances for the continuance of the Reading and Study Skills Center should be submitted in the academic budget in the foreseeable future.

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A PROGRAM OF INDIVIDUALIZED INSTRUCTION FOR COLLEGE FRESHMEN

Incorporated in 1968 as a comprehensive open-door college, Hillsborough Community College, as outlined by Graham (1971), now serves the needs of an urban population with three major types of curricula: college transfer; college terminal; and community services programs.

During the first year of operation, the administration and faculty worked diligently to assess the abilities of the student body, determine their academic needs, and develop a curriculum which would best meet these needs. By the end of the first year, a continum mathematics program described by Shanberg (1971) had been designed and during the second year was put into operation to serve as a pilot study for other programs.

At the beginning of the third year of operation, Freshmen students matriculating at Hillsborough Community College had an opportunity to enroll in the Educational Systems Program (ESP), a curriculum of individualized instruction. The philosophy of this program rests upon three basic premises or assumptions: individual students learn in different ways; individual students learn at different rates of speed; individual students enter courses or programs at different levels of proficiency or achievement. The program currently consists of courses in the following areas: English, mathematics, history, sociology, psychology, reading, biology, western civilization, and French. Only history and English will be described in this paper.

Although each course retains characteristics necessitated by the nature of the discipline, some factors were indigenous to all courses. After the course content was written in terms of behavioral objectives, materials and multiple strategies were developed to implement the program. Accountability tests were then written and validated. Finally, personnel staffing needs were determined and roles were defined.

A preliminary team staffed by a content specialist (or specialists), a specialist in the writing of behavioral objectives, an educational research specialist, and a media production specialist, made recommendations as to how the material might best be presented. With these suggestions in mind, the content specialist (or specialists) made every attempt to incorporate the suggestions into the program. Through this team input the program went through a continual process of refinement. This team approach has been continued to the present gradually evolving into a differentiated staffing pattern.

Current personnel include para-professionals such as laboratory assistants, senior tutors (who possess a B.A. or better), peer tutors (community college students), accountability clerks, and other numerous student assistant categories, all working under the direct supervision of the team leader.

FACILITIES

To implement this program, ESP utilizes both support facilities and operational facilities. One support facility is a testing room which houses specially selected diagnostic tests and numerous forms of teacher-made interval and accountability tests. The Testroom proctor administers a specific test called for on the Test Referral Form, and, if requested, grades these tests and returns them to the specific instructor.

Another important support facility is the learning laboratory which contains individual study carrels, some of which are equipped with tape recorders, television sets, and audio-slide projectors. Using a prescription provided by the instructor, the student may begin his program by watching in-house prepared video tapes or audio tapes. He may also prefer to use commercially prepared filmstrips. The audio visual track which he uses is carefully selected on the basis of the student's original diagnostic profile. Students with high audio-visual capacity are first directed to this instructional method. On the other hand, a student who is more proficient in reading is directed to special sections in the library which contain commercially prepared textual material.

The most important operational facility of the systems program is the Tutorial Center, commonly called the study lounge. In this large-group classroom which was converted for student use, an informal atmosphere is maintained. Yet, opportunity for serious study is maximized. Tutors from each discipline staff this facility and are available for individual and small group study. Faculty offices are adjacent to this Tutorial Center in order that students and tutors can easily contact the instructors. The student is encouraged to seek immediate help from either instructor or tutor.

ENROLLMENT PROCEDURES

At the present time a student registers in the ESP during the routine registration periods established for the college. He may enroll in only one ESP course or may take his total enrollment in the ESP offerings. After classes start, a student may transfer from the ESP into the regular classes. This has occurred very infrequently. Only as a result of extenuating circumstances necessitating special dispensation may a student enroll in ESP from the regular classes after the session begins.

At the time of registration, and after completion of an additional registration student worksheet form, a ESP student is given instructions concerning scheduling, procedures, and location for taking the diagnostic tests. These tests will be used to construct the student's individual profile.

Results of these tests are forwarded to the Accountability Clerks of the ESP office for completion of profiles, charts, folders, and central cumulative files. These compiled data are distributed to all instructors as needed or requested. For example, the history instructors request not only the history but also the reading test scores; they neither request nor receive the mathematics test scores. However, the counselor requests the total battery of scores, while instructors of different disciplines request varying combinations of test results.

Test results are used to construct student profiles which, in turn, are used to determine the individual prescriptions. Thus, the testing program becomes an important component in this Systems approach.

HISTORY PROGRAM

At Hillsborough Community College the traditional Freshman American History course is a six semester credit hour course, divided into two three hour sections. Traditionally, the student may enroll in the first semester course and, upon successful completion of that course, if he so desires, may register for the second half at the next regularly scheduled registration period. All students begin at the same point and must complete their work within the traditional eleven week period.

Upon registering in the ESP American History course, however, the student is required to take a pre-test in history, a reading test, and a listening test when applicable. The results of these tests are sent from the counselor and or testing room proctor to the accountability clerks. Folders and profile charts are prepared for each student and given to the history instructor in charge. At the first regularly scheduled class session, specific insturctions germaine to this subject are given to the students. Each student receives his required lesson assignments and together, with his instructor, outlines his individual course of action. A student who scored at a high level on the reading test may proceed with reading materials. A student who scored low on reading and or listening tests is channeled through combinations of reading assignments, video-tape lectures, cassette tape lectures and slide programs. The latter combination is available for check-out use for the students. In addition, tutors, paraprofessional and or instructors, are available in the Tutorial Center for assistance at any time.

Studying independently, a student proceeds on his own throughout the course, taking accountability tests when he feels prepared, and seeking assistance from tutors or instructors when necessary. In the event of unsatisfactory test results, the student is rechanneled through another media option and after thorough re-study, takes an alternate form of a criterion test.

All lectures are video-taped as well as recorded on cassette tapes. Accompanying these are slide packets which illustrate maps, charts, and other essential visual elements for clarification of the discussion.

Students are expected to attend class approximately once each week. These class sessions are concerned with issues of current interest rather than dealing with historical lecture topics. Therefore, the discussions are applicable regardless of the position of the student in his class work.

When a student completes his work for the first half, he may go immediately into the second half. Conversely, a student who does not complete the course by the end of the first term merely reregisters for the same course and continues until he has finished the required course work. Since ESP philosophy assumes that students learn at varying rates of speed, no grade penalty is ever assigned when a student fails to complete his course work in just one semester.

During the development of this program, the history instructor team manager requested that the reading instructor order and prepare supplemental reading materials in history. Samples of all available American history tests, from sixth grade through college level, were ordered. According to the recommendations of Belden, (1962) readability levels were ascertained for each text. The contents of these texts were then coded to the behavioral objectives in the history course of study. Since the reading level of each student has been tentatively determined, the student may be given supplemental reading activities from these history texts on a reading level which he should be able to adequately handle.

In the event the student may have difficulty in reading the specific history material, the reading instructor will give necessary assistance with specific problems such as reading maps, interpreting cartoons, or utilizing pictorial aids given in the text as reported by McClellan (1971).

ENGLISH PROGRAM

Upon registering in Freshman English, a student is assigned to take an English test, a writing sample, and the reading test. Scores on the reading test together with the student English tests are sent to the instructors who grade the writing samples, design the profiles, and determine the placement of the student within the four levels of the English continuum.

At the time of the conference with the student, the instructor explains the procedures of the program, the results of the student's diagnostic instruments, and the placement of the student. He then assists the student in the selection of an appropriate plan of instruction.

At the present time, there are four instructional options which employ a variety of instructional strategies. Instructional Option No. 1 is a modified form of independent study. The student first becomes acquainted with the Terminal Objective for a particular unit. The student is required to study the Comprehensive Resource Guide until the concept has been mastered. Upon successful completion of the test, the student moves on to the next unit. Instructional Option No. 2 incorporates a number of prescriptions designed to correct any specific student weaknesses. Both textbook and non-textbook materials are used under this option. Under Instructional Option No. 3 the student works primarily with the Student Workbook. After thoroughly familiarizing himself with the Terminal Goal for the assigned unit, the student completes a series of exercises designed to correct specific weaknesses. When the student feels that he has mastered the concept, his instructor will recommend that he complete the test. If he is successful, he may move to the next unit. Under Instructional Option No. 4 the student works independently, acquainting himself with the Terminal Objective for an assigned unit. He then selects and pursues any method which he feels will enable him to achieve his goal. The method used to reach the Terminal Objective becomes the student's personal responsibility. When he is confident of the mastery of the concept, the student may elect to take the test. After successfully completing this test, he moves on to the next assigned unit.

CONCLUSION

The Educational Systems Program at Hillsborough Community College is not viewed as a panacea for the instruction of college students. This program has been implemented without the benefit of external funding and with a minimum of released time for personnel involved in the development of the program. Nevertheless, current plans are underway for expanding the curriculum offerings. In addition, an external-classroom feature is under consideration, thereby permitting students for whom the regular classroom is inaccessible to continue their higher education. This should cater to the handicapped, the military personnel, or any other outbound student.

When the mechanics for a year-round enrollment are formalized, it will be possible for a student to enroll in Hillsborough Community College any day of the year, accomplish his course work any place in the country, and complete his program for graduation any day of the year.

Most importantly, the students at Hillsborough Community College deserve a great deal of credit for having been instrumental in the motivation for and the implementation of this program. Their ongoing evaluations have stimulated its gradual, continuing improvement. Pershaps two student bodies, one housed at the Old Airport and the other in a former supermarket building, have summarized their involvement through, the borrowing of two well-known commercial slogans, paraphrased to read, "Fly HCC where learning is a pleasure."

REFERENCES

Belden, B. R. Utilization of readability formulas for effective instruction. In E. P. Bliesmer and R. C. Staiger (Eds.), *Problems, programs and projects in college-adult reading*. National Reading Conference 11th Yearbook. Milwaukee: The Conference, 1962. Pp. 139-147.

Graham, R. W. *Instant college: the birth of a comprehensive community college*. Boston: Branden Press, 1971.

McClellan, D. A. Reading ability of junior college students and readability of assigned texts. In F. P. Greene (Ed.), *Reading: The Right to Participate*. National Reading Conference 20th Yearbook. Milwaukee: The Conference, 1971. Pp. 348-354.

Shanberg, M. S. Individualized instruction systems. *Junior College Journal*, March 1971, *41*, 46-49.

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USE OF THE COMPUTER IN INDIVIDUALIZING REMEDIATION AT NASHVILLE STATE TECHNICAL INSTITUTE

Nashville State Technical Institute is a coeducational two year college level institution offering Associate Degree programs in five major fields of study. It seeks to prepare students to become technicians in an academic environment knowledgeable of the world of work into which its students will graduate. The technical institute is a recent addition to the array of post high school training rprograms. It was created for the purpose of "training engineering technicians for industry and preparing the student to earn a living as a technician or technical worker in the field of production, distribution, or service (Tennessee House, 1963)."

Nashville State Technical Institute draws from the upper middle to the low percentiles of high school graduates in Tennessee. The Institute has an open door policy meaning that any person who holds a high school diploma or a GED Certificate must be admitted so long as there is physical space available. Goodwin (1971) has reported that the range of reading ability in the junior college (and technical institutes) is often ten or more grade levels, from grade four or five for some vocational and technical students to grade fifteen or sixteen for a few bright academic students. Approximately fifty percent of the student population at Nashville State Technical Institute require some additional training in reading to bring them to the level where they not only can read and understand their daily assignments, but also can become proficient in reading and understanding the highly specialized material in the technology of their choice. Due to the variations in academic preparedness of our students, a remedial program had to be developed to provide individualized instruction in the fields of mathematics and English as well as reading. The primary objectives of the program are the same for the three basic areas: To develop systematic micro-diagnostic techniques for detecting skill inadequacies of entering technical students; To develop individualized instructional materials which will provide students with the opportunity to effectively remove skill deficiencies; To increase the level and rate of achievement; To reduce the attrition rate; and To develop a compter-based environment in which these results can be implemented. (Reiber, 1971, p.2)

In developing a remedial reading program, the following points had to be considered and included to make the program function:

> A diagnostic reading test would have to be developed which would indicate an individual's proficiency in vocabulary, syllabication, long and short vowels and difficult consonant combinations. The instrument should also diagnose technical reading comprehension in the areas of organization of material, contextual vocabulary, information, and main idea.
>
> A series of comprehension programs would be required which would be multi-level, adult, current and leading directly to the student's vocational and avocational goals.
>
> Phonics instruction would be included only in the areas of vowel sounds, consonant sounds and syllabication.
>
> General vocabulary enrichment and specific vocabulary reinforcement would be provided in each student's major technology.
>
> Study skills and techniques would have to be taught on an individual basis.
>
> Reading oriented tutorial assistance would have to be furnished as a supplement to lecture classes in other courses. Tutoring would be provided at the request of the student or any of his instructors.
>
> Personal attention would be given to each student in the program.

In order to meet these goals, additional help was needed to assign materials, to keep records, and to relieve the personnel in the program of the time consuming burden of non-teaching tasks. The IBM 360 Model 30 Computer located on campus was utilized to do these tasks.

The program's first consideration was a diagnostic test. No suitable diagnostic reading test was found to meet the needs of the technical students. Therefore, we developed one which we called the WPJ Diagnostic Test. It was composed of five parts—vocabulary, syllabication, vowel sounds, difficult consonants and their combinations, and comprehension. The comprehension section of the test attempts to evaluate the student's technical reading comprehension, his organizational retention and his analysis of words in context. This section is weighted more than the others. After extensive field testing on comparable groups of students and subsequent item analysis of test questions and answers, test items were improved and the test was refined. It was determined that any student scoring less than a composite score of 50 % on the 5 sections of the test would be assigned to remedial reading. Because the program was of experimental nature, the Stanford High School Achievement Test was chosen to administer to those students assigned to reading. Later, the WPJ Diagnostic was shown to have a correlation coefficient with the Standord of .64.

The second objective was developing or securing comprehension materials. Textbooks that would be interesting to some students would be dull to others. Texts that stressed understanding of technical material were practically non-existent. Paperback books, magazine articles, and professional journals offered an interesting source of reading materials. These offered the additional bonus of introducing a variety of new words whereby a student could enrich his vocabulary. The difficulty of using this kind of material was obvious. If a student had coasted through high school not reading, how could one be sure he was understanding his reading assignments? For this reason, short comprehension tests were developed on each article used. With the exception of those thought to be of limited interest, the exercises and tests were laminated and filed. To supplement the magazines and technical journals, commercial laboratory kits were added and certain college level reading improvement workbooks were torn apart and filed.

The objective was to make assignments that would be of interest to the student. If he didn't like to read anyway, it would be difficult to motivate him to read assignments of little or no interest to him. Rather, his distaste for reading would sharpen to the degree of disgust. As an attempt to provide something for everyone, nineteen interest categories were determined. Five of these areas were the technologies offered at Nashville State Technical Institute. The remaining areas covered a broad spectrum of male avocational interest. (Only six girls have been through the program to date.) After a reasonable number of articles in each interest category were gathered, the Dale-Chall Readability formula was used to determine the level of difficulty of the articles. The formula was applied to representative samples rather than to all articles. A computer code number was assigned to each article . This number indicated reading level, interest, and the location of each article in the laboratory. Finally, an inventory of interest had to be developed to indicate the interest areas of each student. Dr. Jim Hogge of George Peabody College for Teachers wrote an experimental inventory. This instrument indicates the reading areas which each student would find most enjoyable. After the interest inventory is given, the results are key punched, the computer interprets the raw data, and then assigns each student five interest codes. One of these is the student's major field. The student will be assigned material only from the five interest codes. The codes of all the comprehension materials available are recorded on a disk pack in the computer file. The interest codes and reading level of each student is given to the computer. The machine matches student to materials on a two week assignment sheet which is printed by the computer. At the same time,the computer keeps a record of all materials each student has been assigned to avoid any student being assigned the same article twice. During each printout period the computer file can be updated with new information concerning student progress. As the student progresses, the assignments are drawn automatically from more difficult reading materials.

Evaluation of student performance in comprehension is accomplished at the end of each printout period. Because of the time saved through the use of the computer, each student is given a private conference every two weeks. These conferences usually last from ten minutes to thirty minutes. All of the student's work which is graded and contained in his personal file is reviewed with him. The grades on all his assignments are averaged to a percentage figure called percentage-of-achievement which is color coded on a graph in each student's file. This objective evaluation, along with various subjective factors, determines whether the student should move to a more difficult level or remain in his present level.

Reasonable care is exercised to assure that all students are shown progress, no matter how small. Information gained during the conference periods is coded and supplied to the computer center before new printouts are run. New articles are prepared and put on the computer file every quarter. Old, out-dated materials are discarded.

In the Nashville State Technical Institute reading program, vocabulary enrichment comes as a by-product of the comprehension work. In addition to this, vocabulary exercises have been developed that teach basic suffixes, prefixes, and root words. In addition to these miscellaneous vacabulary exercises, technical vocabulary reinforcement exercises have been and are being developed. These are computer managed or assigned instructional materials developed by the reading center in cooperation with the instructors of each particular technology. In data processing, for example, many new words were introduced during the introductory quarter that the programmer would need to know for his entire career in data processing. These words were presented in a program using the 2260 Visual Display Unit. Vocabulary exercises are displayed on the screen according to the needs of the student. Branching techniques enable the computer to present wrong answer responses. Thus additional drill is given to students who need it. The 2260 display terminals are not located in the reading laboratory. Rather, they are in a centralized location where they are also used by the math and English departments.

Phonics instruction in the program is done on a diagnosis-prescription basis. The diagnostic test subscales are analyzed using a computer printed profile sheet. The incorrect responses indicate which particular lessons in the institute-developed series the individual should be assigned. Later, after he is in a technical laboratory situation, he is given an intensified phonics test. Using the information from this instrument, the computer profile is either verified or modified to further diagnose the student's phonetic deficiencies. For example, if a student is unable to divide a word into syllables between double consonants, he is given the first assignment on that particular rule. There are up to four more lessons teaching the same rule that the student may work if he needs them. After he has mastered a specific skill, he goes to the next one in the series until he has mastered all the areas in which he was found to be deficient.

All through the quarter that the student is in the reading program, he is encouraged to skim written material before reading it for information. As he skims he is encouraged to second guess the author to determine the subject, purpose, tone, etc. of the article. Also, he is encouraged to sound out the unfamiliar technical terms that he encounters. Each instructor in the reading program is available at least part of every day to tutor the students in lecture oriented subjects. This program's apparent success is due primarily to instructors being attuned to the needs of the individual student.

The program has been successful and has shown to be an effective means of remediating student deficiencies. At the end of the Spring Quarter, 65% of the students who completed the remedial reading course were still enrolled at the institute. Twenty five of those students who completed the reading course have been on the Director's Honor Roll, meaning that they have made a 3.0 grade point average or above on a 4 point system.

The Stanford High School Battery reading subtest was used to verify results Fall Quarter '70 and Winter Quarter '71. Students in the reading program the fall Quarter of 1970 showed significant gains in the areas of syllabication, vowel sounds, vocabulary and technical comprehension. The probability that these gains were due to chance occurrences was less than .01.

If a remedial program can alter the failure patterns of the students and allow them to develop the motivation and skills needed to become technicians, then it may safely be deemed successful. This kind of a program benefits the student, the institute and society through the development of the most basic of natural resources, the human intelligence.

REFERENCES

Tennessee House of Representatives, "Role and Scope of the State Technical Institute," House Bill No. 633, Tennessee House of Representatives, Page B-1, 1963.

Goodwin, D. D. Measurement and Evaluation in Junior College Reading Programs. *Junior College Research Review*. October 1971, *6* (2), 1-2.

Reiber, D. J. *Exemplary Project Report*. Nashville State Technical Institute, 1970-71.

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VOCABULARY INSTRUCTION: CHALLENGE OF THE SEVENTIES

As we approach the last quarter of the twentieth century, we find that the composition of our educational bag is obviously changing. Higher education is no longer the privileged sanctuary of the intellectual and the financial elite. The gates have been opened to allow entrance to a broader spectrum of the population including the under-privileged and the academically weaker student. Many of these new students have special instructional needs and vocabulary is high on the list of priorities. If it is true for most students that the speaking and writing vocabularies generally lag behind the aural and reading vocabularies, it is probably truer for the student of low socio-economic background. Many of these students have difficulties with parts of speech, endings, speech patterns and pronunciation which is reflected in their poor writing skills. Unless their total language skills are imprived, these students will be at a disadvantage in the communication process. As educators, we need to initiate new programs which will be geared to the development of all four vocabularies.

The job facing educators has been made more difficult and demanding because of the verbal explosion caused by the expansion of knowledge and technoloogy. Students will need help in adapting to the proliferation of words to keep them from being overwhelmed. First, we must lose some of our fixed ideas about vocabulary instruction and rethink the concept of core vocabulary. Undoubtedly, there is a basic core of words necessary for the communication of ideas, but the difficulty lies in evolving a core list that is truly basic since language is now changing and growing more rapidly than ever. Long (1968) has reported that more new English words have come into being in the last fifty years than in the nine hundred years preceeding the twentieth century. According to Stuart Flexner, senior editor of the *Random House Dictionary of the English Language,* "the words we use are changing faster today and not merely on the slang level, but on every level. The rapidity with which words come and go is vastly accelerated. Perhaps a full third of this turnover has occurred within the last fifty years alone (1970, p. 169)." How has this come about? Undoubtedly it has been triggered by the new technology and the vast convulsing, political, social and economic changes besetting present day society. Thus the concern over ecology and pollution has helped coin a new galaxy of words such as fossil-fuels, recycling and biodegradable materials. The concern over the civil rights of minority groups and the effects of racial and ethnic polarization has ushered in such angry terms as: male-chauvanist pig; long hair; law and order; hard hat; and the silent majority. Concern over the problem of the consumer has brought attention to such constructs as: rigged prices; empty calories; and consumer protection. Concern over the problem of alienation in the industrial-affluent society has produced such phenomena as encounter and sensitivity groups as well as a variety of communes.

An example of the way technology sparks new words is the new discipline of pharmacogenetics, which is the study of the interaction between miracle drugs and the genetics of certain types of body chemistry. It seems that technology rewards us with miracle drugs and now a few form of technology is necessary to protect us from its adverse effects. Another example of the mushrooming of technical terms was provided dramatically by Dr. Kenneth Clark in a speech to the American Psychological Association. He urged the study of psychotechnology which is the use of drugs to control the "animalistic and primitive propensities in man in order to protect the masses of human beings from the barbaric use of power by our leaders (1971, p. 47)." As these examples illustrate, perhaps it is more important that our students be challenged to read, grasp and learn about the new forces in our society and the terms to describe them, rather than to focus on words which were more relevant in the past when society was less in a state of flux.

Exposing students to the range of words spurred by the verbal explosion is certainly motivational and interesting, however, it is not enough. Students profit most from direction and guidance and therefore a structured program of vocabulary development incorporating the study of affixes, contextual analysis and dictionary study is highly desirable. The real question then arises as to how this can best be accomplished with students who bring with them a rather impoverished base. In considering this question, several facts of life have to be accepted as representative of the weaker students. Many of these students read little, if at all; the newspapers are given cursory attention because these students are products of the television age and thus have had their message given to them through other more attractive media. Television has brought their world closer to them visually, if not intellectually, yet the primacy of the word, as expressed in written thoughts still reigns supreme in college education. Much of our knowledge comes from books which demand disciplined and sustained attention to the word and the thoughts which emerge. Part of our mission as educators is to reintroduce these students to reading as the major avenue of information, before a formalized and structured program of vocabulary instruction can be launched successfully. In effect, students have to be drawn back to books to see the relevance of the word.

According to Karlin, "Children acquire meaning vocabularies in an easy and natural way prior to and during the early years of school, by listening to and experimenting with words (n.d., p. 4)." In the weaker student, this process seems to deteriorate as the student progresses through primary and secondary school, due perhaps to the lack of appropriate listening and conceptual experiences in school and elsewhere. For these students, the early interest in words in never recaptured, but instead becomes subjected to a word study process which deadens their enthusiasm because it seems meaningless, isolated and removed from experience.

Perhaps we can learn from the past in attempting to re-kindle an interest in words. In the old days, storytellers roamed the countryside and held audiences spellbound with their many tales of adventure and fantasy, and in fact provided much of the language experience. There were plenty of non-readers then, but very few non-listeners. Although the roaming storyteller of old is now an anachronism and technologically unemployed, his wares are still very much in demand. He can be artificailly recreated by finding him where he exists today, as the unseen voice in novels. People still love to hear and read good stories which is why Malamud, Hemingway, Anderson, Camus, Faulkner and Steinbeck are very popular today; our students are no different, just somewhat more reluctant to expose themselves to the written story. It is my belief that the key to recapturing their interest in words is by carefully introducing them to the best storytellers in print today so they can again sit at their feet engrossed in the magic of words, the excitement of plot and the drama of the human experience.

In my basic reading skill classes, books are selected for their storytelling qualities. These books then become the basis for vocabulary instruction. The raw material of vocabulary study is provided by the authors in their choice of words to depict story, characterization, mode and dialogue. Students are charmed and lured to the word by the magic of the story. Words become links to thoughts and conveyors of ideas which are intimately connected to the story.

When words are studied because they contribute to gaining understanding in a meaningful activity, motivation improves tremendously. The story becomes his experience and the words are linked associatively and meaningfully to that experience. This is not intended to make word study some sort of mysterious and incidental act; if anything it has to follow a definite plan of sequence and organization to make learning more effective for these students. Thus, the word list dictionary approach is particularly applicable to a book such as *The Assistant* (Malamud, 1957) because the style is easy and direct. Students are not overburdened by comprehension difficulties in their word study efforts.

Students are asked to study approximately thirty specially chosen words presented in context, using the dictionary to find the meaning intended by the author. The word card method is utilized because many of the students are haphazard in their word study attempts. Included on the word cards are such items as: pronunciation, appropriate synonyms, and an original sentence devised by the student in order to cement learnings.

The word study project progresses then to contextual analysis using a writer who is strong in providing such examples. I have found Cleaver's *Soul on Ice* (1968) particularly applicable for contextual analysis because he floods the page with multiple and parallel synonyms in his rather effusive style as the following example illustrates: "I seek a lasting relationship, something permanent in a world of change where all is transitory and ephemeral." Cleaver is an impassioned and controversial writer; he offers students a real education in the power of words to communicate, influence and convert.

Lastly, the students are introduced to structural analysis, through the medium of the noval *Slaughterhouse Five* (Vonnegut, 1969). Vonnegut, uses many interesting words. Although the story is somewhat more complicated, it becomes less so when read aloud because the humorous and ironical aspects then become more obvious.

A program of reinforcement and practice is provided in order to maintain learning. Two aspects are emphasized: using the words in conversation and in writing. According to Deighton, "A student's writing vocabulary will expand in direct proportion to the opportunities he has for writing something that is read and evaluated, and that normally these opportunities are far too few (1960, p. 3)." Thus the responsibility of teachers engaged in vocabulary instruction is more than helping students gain greater reading and listening vocabaularies of various depths and abilities; teachers should also provide many opportunities for students to write and speak using these new words as frequently as possible in brief descriptions, essays, diaries, etc. to help students gain command.

Teachers should also make use of the new technologies that provide for greater individualization. In order to improve the listening and speaking vocabularies, tapes and earphones should be used creatively for instructional and practice purposes as in the language laboratory. In addition, we should be devising new techniques of learning incorporating more dynamic approaches to programmed instruction, laboratory experiences and experimenting with the use of language tutors to help students communicate better.

We can be certain that the knowledge and verbal explosions will continue and it will be impossible to keep pace with the proliferating informational input. Perhaps we should heed the warning of Alving Toffler (1970), author of *Future Shock*, that "education must shift into the future

sense (p. 427)." He prophesizes that "tomorrow's illiterate will not be the man who can't read; he will be the man who has not learned how to learn(p. 414)." He is probably right.

REFERENCES

Clark, K. Leadership and psychotechnology, *N.Y. Times*, Nov. 9, 1971, 47.
Cleaver, E. *Soul on ice*. N.Y.: Dell, 1968.
Deighton, L. C. Developing vocabulary: another look at the problem. *English Journal*, Feb. 1960, *49*, 82-87.
Karlin, R. A Three-Pronged Attack on Vocabulary Development. ERIC No. ED-013711.
Long, T. H. Technology and its effect on language. *Electronic Age*. Autumn 1968, 9.
Malamud, B. *The assistant*. N.Y.: Farrar, Straus and Giroux, 1957.
Toffler, A. *Future shock*. New York: Bantam Books, 1970.
Vonnegut, K. *Slaughterhouse five*, New York: Dell, 1969.

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WORD ATTACK SKILLS AND PERCEPTION–A PROGRAMMED APPROACH

Each semester some 12 per cent of the students enrolled in either our reading or study skills courses at Hinds Junior College express a need for help with spelling and pronunciation. The faculty regularly refers certain students to the reading department specifically recommending that the student overcome his deficiency in spelling. Since apparently the techniques and systems offered the student in his pre-college schooling failed for one reason or another, we wanted a different approach. We wondered what other colleges offered such students.

Geerlofs (1966) analysed statictics from 90 reading centers in forty states in 1965. Twenty-one institutions ranked vocabulary and word attack skills as highly important. Materials listed in the study suggested that the emphasis is on vocabulary and not word attack skills. A more extended survey of 246 colleges, universities, and reading clinics from 46 states and the District of Columbia is reported by Geerlofs and Kling (1968) with similar conclusions. Price (1969) in a similar survey of 546 colleges found eleven involved with Basic Studies. The material and texts listed indicate little or no attention to the problem. Colvin's (1967) survey of Pennsylvania colleges found two colleges concerned with perception and mechanistic aspects of reading. We assume this was practiced in rapid assimilation of phrases and speed drills. Neither the description of commercial tests, workbooks, teacher-prepared materials, nor teacher training indicate a specific attention to perception.

We contacted other Universities and community colleges. The basic pattern was to refer students with spelling problems to the reading clinic or the school of education for individual diagnosis and remedial instruction. Neither the materials nor the objectives listed showed any recognition of the problem.

REVIEW OF RESEARCH

Phonics

Reviews of research found in the *Reading Research Quarterly* from 1965 to 1971 indicate very little investigation in either word attack skills or the spelling difficulties of college students. Magee (1968) reports instruction in phonics did not produce gains in spelling skills of college students, even though the students gained in phonics knowledge. Studying 1,652 freshmen Brown and Cottrell (1963) found that the lower the phonics score, the less chance of an adequate reading score and that students really low in phonics, score only low in reading. The same study produced correlations between phonics and reading that were significant at the .01 level. Interpreting test results, the authors state, "Ten errors made by a student of high verbal ability and good academic standing are far more likely to imply real phonic disability (for which the student may have compensated in other ways) than ten errors made by a student having a low academic standing, a poor vocabulary, and very little reading experience (p. 28)." Of numerous college texts and workbooks examined, we identified three that provided some aid to students in the area of phonics: Spache and Berg (1055) approached the area through the use of the dictionary; Sherbourne (1958), and Jones, Morgan, and Petty (1968) through a summary of useful phonics generalizations combined with drill. In our opinion a student would need to be highly motivated and possess unusual verbal aptitude to profit from these sections.

In a study of the role of grapheme-phoneme correspondence as related to perception of words, Gibson, Pide, Ozzes, and Hammond (1972) concluded that skilled readers are aided in perception by the graphemephoneme correspondences of the English language. For the college instructor interested in an analysis of modern English and spelling to sound relationships, we recommend Venezky's article (1967) in the *Reading Research Quarterly*. His analysis was helpful to us in developing our package, particularly his description of long and short sounds which he prefers to describe as free and checked.

Perception

Jackson (1963) notes the lack of research in the area of word perception and word attack and suggests that the area merits extensive and more exacting research. He suggests, "If perceptual-motor performance itself should improve following the reading course, then there would be evidence that it is not invariably produced by irreversible organic impairment, even in adults (p. 126)." Excellent discussions in the area of discrimination as it relates to processes and training can be found in Wark (1965) as developed by Clark, Geake, Greene, and Smith.

Of the many definitions of perception found in current journals, we prefer those that recognize the emotional nature of the learner. This global view of perception is represented by an array of articles in the *Third and Fourth General Yearbook of the North Central Reading Association* (Wark, 1965). Greene's discussion (1965) of literal and schematic perception should be helpful to anyone devising a package of materials designed to increase perception.

For the purpose of developing our package, we define perception as the process of scrutinizing a word or syllable in order to react to its spelling sequences and to predict its probable sound by observing its surroundings . One of our more important objectives is to reinforce the student's tendency to use an orderly analytical process. A second objective is to increase the student's appreciation of and confidence in his own auditory, visual, and mental equipment.

Working with students to improve spelling and pronunciation convinces us that only a few habits and misconceptions result in the poor spelling, slow reading, skipping of significant words, or lack of confidence which results from inability to pronounce unfamiliar words. Habits and misconceptions which are easy to observe in the behavior of these students are:

1) Various confusions resulting from having learned and misapplied the expression "a vowel preceded by a consonant."

2) Failure to notice whether the consonant is part of a consonant blend or part of a vowel spelling such as an *ar*, *or*, or *ire*.

3) An inadequate appreciation of the value of the student's own hearing and visual ability.

4) Failure to correlate and observe the sequences of sounds heard in a syllable and the letter sequences that represent those sounds.

5) Vague and inadequate notions about the role of the accented and unaccented syllable.

6) Frustration rejections of any generalizations concerning word attack because generalizations taught in pre-college schooling failed to work. For example, a student dutifully learns that a vcv sequence is a cue to a long vowel before the consonant because the first vowel will be the last letter in the first syllable without realizing that there are two other possibilities: 1) the arrangement may represent a syllable that ends with a consonant and contains a short vowel, e.g. *esoteric* and *novice;* and 2) although the syllable may end in a vowel, the syllable may be unaccented in which case the vowel sound is likely to be schwa, e.g., *amalgamate, anoxia, peruse,* and *parity*. Over emphasis has made the student feel he has a principle that is universally true until he observes many discrepancies. Only the highly analytical and determined student extricates himself from his confusion.

Besides these learned behaviors, the junior college teacher is confronted with several other dilemmas more of an emotional nature than intellectual. The student is sensitive about his problem. If the approach reminds him of an elementary method, he will not persist. If, on the other hand, the approach is complex and intricate, the student may be frightened and repelled. But the fact that the student has enrolled tells the instructor that the student is motivated and has some emotional fortitude because in our area the adult continually treats the subject of college reading in a rather derogatory manner.

LEARNING OBJECTIVES

In selecting learning objectives, we looked for generalizations that had four characteristics: the generalization was either unknown to the typical student or if known was not being used; the principle would be useful and could be immediately applied to the spelling and pronunciation activities of the student; the student could demonstrate his mastery of the principle to his own satisfaction; and each successive principle learned would reinforce those learned earlier.

To identify the generalizations to be taught, we worked with individuals. We listened to an individual read; and when he mispronounced a word, we asked him to describe what he had done to arrive at the pronunciation. We identified a word frequently misspelled by a particular student and asked him to tell us what he saw when he looked at the word. We analyzed errors made on the *California Phonics Survey Test* (Brown and Cottrell, 1963). We became aware of the most frequent misconceptions and what seemed to be misdirections in word attack.

From the information gained by the process, we selected some twenty generalizations and skills which our students needed for a more efficient attack on words. Each generalization to be programmed was selected only if it could contribute to learning by encouraging the student to: hear in an orderly way; see in an orderly way; observe, analyze, and generalize; be flexible in scrutinizing a word for cues to pronunciation or spelling; and review and apply the skills and generalizations learned in preceding objectives.

Our next step was to develop a pre and post test for each of the objectives. The tests developed may be worked and scored by the student within three minutes or less. We hoped the student would see what he needed to learn and be motivated to apply what for him would be a new behavior. At the same time, we selected certain reading techniques and presentations that would meet two criteria: the student must respond favorably; and the presentation must aid the student to a rapid assimilation of the skill or generalization.

We worked with small groups presenting the generalizations in various sequences, learning as we did so which sequences caused confusion or negative reactions from students. The sequence we evolved enabled us to begin auditory and visual training with words selected from college textbooks. We started with whole words and moved to parts. Examples and words were often incorporated in pairs of sentences. By a careful selection of examples, we succeeded in neither repelling nor intimidating the student. The student working through the sequence could discover the interrelationships of sound and spelling without becoming permanently stuck at some discreet element of the verbal and auditory signals presented.

STUDENT ACTIVITIES

In a series of individual and group conferences, the student decides which of the specific exercises he needs in order to improve. He analyzes his scores on the *California Phonics Test* and checks on a chart the specific objectives he will achieve at a regularly scheduled laboratory period. He works with a cassette player and recorder. Instructed by the audio tape, he reads the learning objective with an illustration of what he is expected to perform. He takes and corrects a pretest which can be completed in three minutes or less. Continuing with the exercises, he is instructed to use manipulative material in order to achieve his objective. The manipulative material may be a set of cards, a filmstrip, or an exercise. The concept is frequently presented in sentences that reveal contrasts in meaning as well as the visual cues to the nature of the cues to pronunciation. After about five minutes of observation and experimentation, he takes and scores a posttest. If he cannot score 100 per cent or is not satisfied with his behavior, he continues to work using a different approach or he discusses his problem with the instructor.

We begin with the accented syllable because there is virtually no working understanding of accent. The student readily appreciates the significance of this feature of the language; and because he grasps the concept easily, he gains some much needed confidence. Each of the succeeding objectives are naturally related to accent. With initial success insured, the student is willing to attempt the other objectives. The objectives achieved by the student follow:

Unit One - Accented Syllable

1. Reacts to accent on hearing a multisyllable word.
2. Reacts to accent on seeing a visual cue to accent.
3. Generalizes that syllables alternate in a pattern of emphatic and less emphatic sound units.
4. Observes that certain suffixes are cues to accent.
5. Observes the tendency to indicate the part of speech by shifting the accent from one syllable to another.

Unit Two - The Accented Syllable
Long and Short (Free and Checked; Open and Closed) Vowels

1. Identifies the vowel and auditory cue by giving the alphabetic name, its position in the syllable, and by describing it as long or short, free or checked, or open or closed.
2. Predicts the sound of the vowel and pronounces the syllable from a visual cue.

Unit Three - The Unaccented Syllable

1. Reacts to schwa by identifying the unaccented from

an accented syllable.

2. Generalizes that only one of the vowels may represent schwa and identifies schwa in a familiar three syllable word.

Unite Four - Syllabication

1. Identifies the number of syllables first from auditory cues and second from visual cues.
2. Reacts to vv, vev, vccv, and vc-v sequences as cues to syllabication and the possible sound of the vowel.

Unit Five - Vowel Digraphs, Vowel Dipthongs, Vowels Affected by *R*

1. Reacts to auditory cues and visual cues.
2. Discriminates between vowel dipthongs and vowel digraphs.
3. Discriminates between vowel dipthongs and long and short sounds.

Unit Six - Consonants. Consonant Blends, Consonant Digraphs

1. Reacts to consonants with which he is not familiar by observing and listening to the sound in words he wishes to spell.
2. Blends the consonant when encountered in unfamiliar words, or when encountering a digraph, reacts appropriately.

Unit Seven - Flexibility

1. Developes rules of his own by noting the repetition of certain other sequences in a series of words, e.g., *rhizome, Rhesus.*
2. Scrutinizes a pair of words similar in spelling in order to locate the syllable that is different and demonstrates awareness of the difference in spelling by writing the syllable in contrasting colors.
3. Pronounces a nonsense syllable that sounds like a real word but is not spelled like a real word.

Unit Eight - The Dictionary

1. Uses what he has learned to pronounce an unfamiliar word when the syllabication and accented syllables have been indicated.
2. Compares and contrasts the diacritical marks of several dictionaries.
3. Pronounces an unfamiliar word by reacting to the diacritical symbols.

CONCLUDING STATEMENTS

We do not feel that immediate improvement in spelling can be used as a measure of the usefulness of an increased awareness of generalizations even though students insist they have improved, often dramatically. If the test used is a general or standardized test, it has been noticed by various writers that a vocabulary improvement course rarely results in significant improvement in scores earned. A better test in our opinion would be how many words frequently misspelled in various courses in the first few weeks of the semester have been mastered. A second measurement might involve noting the improvement in the reading of a comparable passage at the end of the course. The two selections should be of comparable difficulty and subject matter. The passages should contain words testing the ability to discriminate and apply the generalizations. To be sure that the test words are unfamiliar to the student, words from both passages would have to be developed. The student who mispronounces *al ter' na tive, al ter na' tive* is discriminating well. He has just misplaced the accent. The student who pronounces the same word as *al tre' na tive* is confusing the *er* with *re* and discriminating with much less efficienty. There are other problems. With semantic, syntactic, and meaning cues provided by the passage, the student would probably correctly pronounce words in one passage which he would miss in a list or a different passage. Despite the problems, we believe such a study would be useful.

In any case we do not think that our package, useful as it is, can be used alone. Used with other informal and personal aids especially with wide and continuous reading, the package should be an invaluable tool in meeting the needs of the college student properly diagnosed as weak in word attack skills related to phonics and ability to discriminate by the most efficient use of the auditory, visual, and analytical faculties.

To recapitulate, we developed our package to meet certain needs of the junior college student who refers himself or is referred for help with either spelling or pronunciation difficulties. We are convinced that such a package must be designed to permit the student: independence and privacy; and a rapid and emotionally satisfying process for developing new responses or substituting effective responses for ineffective reactions. Approaches that strike the student as elementary repel him; procedures that require the student to budget large parts of his day to the achieving of a given objective are impractical as are procedures that require continuous supervision by the instructor. The junior college student is often a commuter and a wage earner. If he lives on campus, he spends as many hours as his commuter counterpart in extracurricular activities. A generation conditioned to instant light and instant oatmeal expects instant learning. Our program is designed to meet the student at least half way in providing for his needs and his expectations.

REFERENCES

Brown, G. M., & Cottrell, A. B. *California Phonics Survey*. Monterey, Calif.: California Test Bureau, 1963.

Colvin, C. R. Objectives, organization and administration of college program—Pennsylvania revisited. *The Journal of the Reading Specialist*, 1967, *7*, 2-7, 43-49, 90-94, 139-143.

Geerlofs, M. W. A survey of current practices in college level developmental reading instruction. Unpublished paper, Rutgers University, Jan. 8, 1966.

Geerlofs, M. J. & Kling, M. Current practices in college and adult developmental reading programs. *Journal of Reading*, 1968, *11*, 517-520, 569-575.

Gibson, E. J., Pick, A., Osser, H., & Hammond, M. The role of grapheme-phoneme correspondence in the perception of words. *American Journal of Psychology*, 1962, *75*, 554-570.

Greene, F. P. Review of research: visual discrimination. In D. M. Wark (Ed.), *College and Adult reading*. North Central Reading Association 3rd & 4th Yearbook. Minneapolis: the Association, 1965. Pp. 1-19.

Jackson, B. B. Perception and the handicapped college reader. In D. M. Wark (Ed.), *College and adult reading*. North Central Reading Association 5th Yearbook. Minneapolis: the Association, 1968. Pp. 123-132.

Jones, G. L., Morgan, R. A., & Petty, E. L. *Effective reading for college students*. New York: Appleton-Century-Crofts, 1968.

Magee, E. H. An investigation of the relationship between phonics knowledge and spelling achievement of college students. (Doctoral dissertation, University of Southern Mississippi), Ann Arbor, Mich.: University Microfilms, Order No. 69-4701. Dissertation Abstracts, March 1969, *29*:2895A.

Price, U. Summary of responses to reading survey QR6102. Unpublished paper, Appalachian State University, May 1969.

Sherbourne, J. F. *Toward reading comprehension*. Boston: D. C. Heath, 1958.

Spache, G. D., & Berg, P. C. *The art of efficent reading*. New York: MacMillan, 1955.

Venezky, R. F. English orthography: its graphical structure and its relation to sound. *Reading Research Quarterly*, 1967, *2*, 75-105.

Wark, D. M. (Ed.), *College and adult reading*. North Central Reading Association 3rd & 4th Yearbook. Minneapolis: the Association, 1965.

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ISSUES IN THE SPEED READING CONTROVERSY

There has been considerable disagreement regarding the nature of rapid reading, its measurement and parameters of performance.

Any discussion of these issues necessarily involves a definition of reading. In general, the term reading is applied to *any* behavior which involves the processing of printed symbols or written discourse. This general definition refers to the generic *process* of gaining meaning from discourse. The term reading is also used in a specific sense in which the *nature* of the process is delimited as "reading, or focusing upon with unspecified acuity, all or most of the words" in the discourse being dealt with. In this specific sense, reading is frequently distinguished from skimming and scanning, reading (generic definition) strategies in which the person necessarily focuses on certain words to the exclusion of other words in the discourse.

Part of the continuing controversy about rapid reading focuses on whether the process of using visual contextual restraint (or not looking at all the the words in the discourse) should be called reading or skimming. When the generic and specific definitions of reading are considered in terms of rate (words per minute), the question of the number of words actually perceived per minute in proportion to the number of words in the discourse being processed or dealt with per minute remains controversial.

The inadequacies of current criterion measures seem to be the primary reason for the present state of affairs. The measurement problem, frequently discussed and lamented, is complicated by the difficulties of handling the strategy variable, which includes the reader's (generic) purpose and the nature of the process or procedure used to satisfy the given purpose. Further, there is the problem of assessing the extent to which a person achieves the specified purpose in the light of his prior information about the content.

More than a simple semantic problem, the controversy suggest important questions on the nature of rapid reading. How does the mature rapid reader process printed discourse? What strategies do the most effective and efficient readers adopt when they are performing optimally? How many words does the reader actually need to see in order to gain the essential meaning of the discourse?

REDUNDANCY

Nacke (1970), Goodman (1970), Smith (1971) and Bowers and Nacke (1972) have discussed the facilitative effects of redundancy upon rapid reading or skimming. Goodman (1970) has theorized that essentially through the use of redundancy and the sequential constraints of language the child is able to use increasingly fewer graphic cues as he develops his reading skills.

Smith (1971) has supported his hypothesis that semantic redundancy results in reducing the number of visual features required to identify a word by a study in which individual words were presented tachistoscopically after a one-sentence context had been given. He concluded from this study that "there is not a fixed amount of visual information required to identify a *word* (my emphasis), but rather (that) the amount of featural information needed depends on how much information is available elsewhere (pp 202-203)." While this conclusion may be correct, there is no indication that he accounted for the effect of the after-image in tachistoscopic presentations and, too, such studies of words and single sentences need to be extended to the sequential nature of the mature reading process, that is, to discourse.

Nacke (1970) controlled the background information and the strategy variables in an investigation of skimming as a function of redundancy reduction. This study indicated that redundancy reduction generally did not facilitate the skimming of grade eleven subjects. At the same time, subjects who skimmed the stimulus passages with less redundancy (i.e. fewer key words) generally gained as much information as those subjects who were exposed to stimulus passages with less or no redundancy reduction.

BACKGROUND INFORMATION

Background information has frequently been discussed as a factor which affects reading performance. In the past, very little scientific evidence has been offered regarding the effect of familiarity with content on mature reading. Nacke (1970, 1971) has demonstrated that high school students who have more background information about the content of a given passage perform better on a skimming task than those who have less prior information.

If a person who has greater background information is better able to anticipate or predict the information in the printed discourse, then it may well be that skimming (or rapid reading) is essentially a function of the effectiveness of the reader's predictions and the extent to which the predictions are confirmed. This basic aspect of a model for rapid reading seems to be worthy of further investigation. It has many implications for instruction and practice.

CONCLUSION

Clearly, if any of the current issues relating to speed reading and efficient reading are to be resolved, we need to determine systematically the factors which facilitate rapid reading, including memory, practice effect, and personality and attitudinal factors as well as those variables discussed above. We need also to identify data-based instructional procedures which take into account individual differences. Improved ways of assessing the range of strategies used by our most competent readers must be developed.

REFERENCES

Bowers, F., & Nacke, P. L. Cloze, transformational theory and redundancy. *Journal of Reading Behavior, Winter 1971, 4,*

Goodman, K. S. Reading: a psycholinguistic guessing game. In H. Singer & R. Ruddell (Eds.), *Theoretical models and processes in reading*. Newark, Del.: International Reading Association, 1970. Pp. 259-272.

Nacke, P. L. Skimming strategy in reading as a function of familiarity with content and redundancy reduction in printed discourse. (Doctoral dissertation, University of British Columbia) Ottawa, the National Library of Canada. Dissertation Abstracts, June 1971, *31,* 6475A.

Nacke, P. L. Skimming strategy in reading science and social science as a function of familiarity with content. Paper presented at the meeting of the International Reading Association, Atlantic City, April 1971.

Smith, F. *Understanding reading*. New York: Holt, Rinehart and Winston, 1971.

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COMPARISONS AMONG NORMAL READERS, SPEED READERS AND CLAIRVOYANT READERS

While investigating research and practice in speed reading (Carver, 1971), it became apparent that there was only one reported experiment which compared normal readers with graduates of a course which used the Evelyn Wood dynamic reading method. This research was conducted by Liddle (1966). Evelyn Wood's summary of that research is presented below:

> At the University of Delaware, a careful study of the Evelyn Wood Dynamic Reading technique was made by William Liddle, a Ph.D. candidate, using a control and an experimental group. In reading non-fiction, he found no significant differences in comprehension between the two groups, despite the fact that the experimental group read at 1300 wpm—better than three times the speed of the control group. (1963)

The purpose of this article will be to further evaluate the research conducted by Liddle and to further interpret its results.

With the above statement of Evelyn Wood, it might be inferred that she would only contend that her method worked with *nonfiction* since she did not mention the significant difference between the comprehension of the speed readers and the normal readers for *fiction* material. What actually happened in Liddle's research was that the overall scores on the non-fiction material were lower for the speed readers as compared to the normal readers, but the difference was not "statistically" significant.

It is quite possible that the reason that the results for the fiction material were statistically insignificant was because the comprehension test used for this material was insensitive to decrements in comprehension.

In order to investigate the sensitivity of these comprehension tests, I asked six of my associates at work if they would help me test out a new method of reading which was jokingly termed clairvoyant reading. Here are the instructions that I read to them.

> You are here today to learn a new technique in reading. This technique is called "clairvoyant reading." There are two problems associated with reading as it is done by most mature readers in this the 20th century. One problem is the sheer time involved in reading, and no one ever seems to have enough time. The other problem is the physical one of acquiring the information that you desire to read. That is, one often desires information that exists in a library, such as the Library of Congress, but it takes an extraordinary amount of time to go to the library to acquire the book or the particular information that one needs.
>
> Speed reading courses claim to have solved, for the most part, the time problem involved in reading since they claim that they can teach most anyone to at least triple his reading rate with no decrease in comprehension. However, the problem remains that speed reading seems to require that you have the pages of a book in front of your eyes before you can actually read it. Today I am going to attempt to demonstrate that people can learn to speed read a book that still remains in the library, and the reading will not be skimming. Furthermore, I expect that you can learn to read this way with little loss in comprehension.
>
> Now, if there are no questions would you please close your eyes and we shall begin our practice session. Please concentrate on what I say and give me your undivided attention. I cannot promise how well you will read if you are not practicing the technique.
>
> Now, imagine yourself in the Library of Congress. You have been given the book entitled *The Pearl* by John Steinbeck. Imagine yourself turning to the center of the book. When I say "start", imagine yourself turning the pages of the book as fast as you can, reading each page at a single glance. Ready, start.

At the end of three seconds, the subjects were told to stop and open their eyes. Then, a comprehension test on what they had speed read clairvoyantly was administered. The test questions were exactly the same ones that Liddle used in his research. Before administering the test to these six people, I gave them the following instructions:

> Since you probably have never read clairvoyantly before, and with such speed, I will give you some brief advice about taking the test. You may think that you learned very little while you were reading this time. However, I feel quite sure that you learned something so I hope that you will not simply guess at every answer. Read each question and alternative answer, and spend a small amount of time trying to reason out your best answer. What you learned clairvoyantly on this first practice reading may be mostly subconscious. Thus, you should give your subconscious the opportunity to guide your answers. The only way you can do this is by studying each question carefully and then "let your subconscious be your guide." You may be surprised how many answers you can get

> correctly this way. I will grade your test tonight and tell you how well you did tomorrow.

The subjects were given as much time as they wanted to answer the 65 questions on *The Pearl*. After they had all finished this test, they were given the following instructions:

> Although the last reading which you did was only for practice, I expect you will be able to comprehend quite well this time. The technique is not complex so you should realize the full potential during this reading.

Please close your eyes, now.

> Imagine yourself again at the Library of Congress and you have just been given the book *Principles of Sociology* by Freedman, Holly, Landecker, Lansky, and Minor, published in 1956. Imagine yourself turning to the first page of Chapter 8. This time do not waste time imagining yourself turning the pages, simply imagine that each page has been turned automatically and instantaneously. You will be amazed at how much time this saves. Although you should not be overly concerned with comprehension while you are reading this fast, you will find that you will be able to recall what you have read quite well, later when you take the test.
>
> Get ready to begin reading, START.

At the end of three seconds, I asked them to stop and to open their eyes. Then I gave them the same test questions that Liddle used for his nonfiction reading, that is, the questions on the chapter from the introductory sociology book. Before taking the test, the subjects were given the following directions:

> This time as before, please study each question carefully before you answer it so that what you read clairvoyantly will have a chance to influence your answer on each question. Naturally, you would have comprehended much more if you had spent a great deal of time finding the book and then had spent a considerable amount of time reading this particular chapter. However, as you answer the questions on this test you will see that your level of comprehension was fairly high while you were reading clairvoyantly for only three seconds. Also, I think you will see that you are doing much better than you did on the practice reading earlier.

Again, the subjects were given as much time as they desired to complete the test, which incidentally, was the same way that Liddle administered the test. In a manner similar to Liddle, it was determined, that none of the six people had ever read *The Pearl* before, that none had ever read that sociology book before, and that none had ever been a sociology major in college. Liddle's normal readers and speed readers were in the top 25 per cent of their college class. These six subjects were all college graduates, but none had a doctor's degree. This, it appears that the group was probably similar in aptitude to both groups Liddle tested except this group was older, ranging in age from approximately 25 to 35.

Table 1 contains the average scores on both tests for all three groups, i.e., Liddle's normal readers (N-25) and speed readers (N-25), and the clairvoyant readers (N-6).

Table 1

Average Scores for the Two Tests

Reading Groups	Fiction The Pearl	Nonfiction Sociology
Normal Readers (Liddle)	53	38
Speed Readers (Liddle)	44	36
Clairvoyant Readers (Carver)	33	30

Table 2

Percent Comprehension Scores for the Two Tests

Reading Groups	Fiction The Pearl	Nonfiction Sociology
Normal Readers (Liddle)	82	72
Speed Readers (Liddle)	68	68
Clairvoyant Readers (Carver)	51	57

So that you can observe what these scores are in terms of "percent comprehension" as it is often calculated, the raw score means have been divided by the total number of test questions. These results are presented in Table 2.

The comprehension of the Clairvoyant Readers was quite good, being 51 % for the fiction material. More amazing however, is the very small drop in comprehension for the Clairvoyant Readers as compared to the Speed Readers. That is, for the fiction material there was only a 17 % drop in comprehension and for the non-fiction there was a very insignificant drop, 11 %

An entrepreneur could probably make a considerable amount of money and help a large number of people if he started a company that would teach clairvoyant reading. Think of all the time and money it would save people. Not only would individuals be able to read books in lightening speed, but they would not have to go to the trouble of finding the book and paying for it. Enough of this nonsense!

It seems clear that neither of these two tests was very good for measuring the amount that the readers had learned or comprehended while they were reading. If a group of Clairvoyant Readers can get over 50% of the questions right without even reading, then it would seem that something is not quite right with these tests. The tests were probably quite good for measuring comprehension in relations to an average person. However, Liddle made no effort to see if the tests measured how much was actually comprehended. He did go to great lengths to use the traditional test construction technique of throwing out all the easy and difficult questions to revise the test. Someday, courses on testing in colleges and universities will start teaching students that the traditional test building procedures are not adequate for measuring human improvement but are only adequate for measuring individual differences. Until this change occurs we can frequently expect to see ridiculous results come from tests even when they are used by trained people.

Someone may be suspicious of the 51% and 57% comprehension scores in the group of Clairvoyant Readers. Yet, these data are not unbelievable if the following points are considered: there were only four alternative answers to each question so a first grade student tossing a four sided coin would have averaged 25% comprehension; it is difficult to construct test questions without making some of the alternative answer obviously wrong, which means that on some questions the examinees are not guessing from four choices but are guessing from only two or three choices (see Carver, 1969); Liddle did not do any research on his test to make sure that the test questions could not be answered by bright students using background knowledge; the bright students can learn some things from just reading the questions that will help them answer other questions; and college students average about 40% on the questions used on a standardized reading test, the Nelson-Denny Reading Test, without reading the passages (Carver & Darby, 1971) and the Nelson-Denny questions have five alternative answers (chance equals 20%).

Looking at the results in the tables, it can be seen that as poor as both tests are, the test on the fiction material is much better than the one on the nonfiction. Notice that the difference between the percent comprehension for the normal readers and the clairvoyant readers is 31 percentage points on *The Pearl* while the difference on Sociology is only 25 percentage points. Another way of looking at the differences between the two tests is to look at the percent gain in scores due to reading on the two tests. On the test questions for the fiction material, the Normal Readers answered correctly 61% more questions than the Clairvoyant Readers. On the nonfiction material, the Normal Readers answered only 27% more questions than the Clairvoyant Readers. Thus, it should not be too surprising that Liddle did not find a "statistically" significant decrement for the speed readers on sociology when he was using a "Yardstick" that was so crude that it could hardly measure a difference between people who had read the chapter, normally, and people who had *not* read the chapter at all.

In summary, it appears that there is evidence which refutes the claim that a speed reading course can at least triple a person's reading speed without a loss in comprehension, and Evelyn Wood, herself, appears to accept this evidence for fiction materials. Furthermore, it appears that the only scientific evidence that Evelyn Wood can muster for her method comes from research where no "statistically" significant difference was found between speed readers and normal readers for nonfiction materials. Yet, when this research was analyzed in detail, it was noted that the speed readers did have less comprehension then the normal readers. Furthermore, the main reason that the drop in comprehension for speed readers was not "statistically" significant was probably because the test was so crude that it even had difficulty showing a drop in comprehension for a group that had not read the nonfiction material.

The most important implication of these data is that one should be extremely cautious about interpreting the comprehension scores which accompany high reading rates. It has long been recognized that it is meaningless to talk about high reading rates without a valid measure of the comprehension which accompanied these rates. What has often been overlooked when interpreting speed reading data is the fact that even highly sophisticated standardized reading tests (i.e., as judged by traditional standards) are likely to provide relatively high percent comprehension scores when the actual comprehension is zero.

REFERENCES

Carver, R. P. A model for using the final examination as a measure of the amount learned in classroom learning. *Journal of Educational Measurement*, Summer 1969, *6*, 59-68.

Carver, R. P. *Sense and nonsense in speed reading*. Silver Springs, Md.: Revrac Publications, 1971.

Carver, R. P., & Darby, C. A., Jr. Development and evaluation of a test of information storage during reading. *Journal of Educational Measurement*, Spring 1971, *8*, 33-44.

Liddle, W. An investigation of the Wood reading dynamics method. (Doctoral dissertation, University of Delaware, 1965.) Dissertation Abstracts, Sept. 1966, *27*, 605A. Ann Arbor: University Microfilms, Order No. 66-5559.

Wood, E. N. Opinions differ on speed reading. *NEA Journal*, April 1963, *58*, 44, 46.

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SPEEDED READING FOR THE 70's

Looking back at the 60's should give us some clue as to the challenges that lie ahead for us in the 70's. Speedreading was a large issue and a great deal of controversy was generated about whether or not "it" could be done, it meaning reading at rates over 1000 or 1200 or 2000 words per minute. Certainly this is no longer a question for debate: there is simply too much evidence that shows that people can be taught to read faster. But from this controversy hopefully the 60's have taught us that to speak of a single reading rate is ridiculous, and to define reading by rate is absurd. Today, we should have enough perspective to sift out the developments of worth and to make certain that every effort is being made to implement them where they are needed. We certainly have had enough experience to also know where many of our future areas of researhc and development need be. I intend to give a brief glance at the 60's , discuss the most important techniques which were developed, and make some proposals for the balance of the 70's.

Certainly the very meaning of the word reading is changing: it has changed from being the definition of processing individual words to a process of gaining sense from a set of words without necessarily processing each individual word. This was most likely a result of the rate controversy which was never settled but at least quieted down. Perhaps the rate controversy is not so much a matter of dispute over how fast a person can read as it is how fast a person can comprehend. Everyone knows that speed without comprehension is not reading and is meaningless, yet no one seems to give a solid and workable definition for comprehension. Thus the average person can scan a column of names in a telephone book looking for a certain party and find that name at a phenomenal rate. Is this reading? Is this comprehending? Certainly it is viewing and processing *all* of the words in order to reject unwanted information until the goal name is found. No one should advocate this scanning process for a serious reading of material to be studied, but perhaps it should not be so lightly dismissed.

In a recent edition of the *Journal of Reading* we are taught how to debunk numbers. Rauch (1971) states that he can provide a large number of sports-minded junior and senior high school students who can read a *Sports Illustrated* article at extraordinary rates which he debunks by explaining that: "These youngsters bring such a wealth of information to the topic as a result of daily reading of sports pages, television programs and conversations with friends, that they don't have to go beyond the first paragraph to discuss the article intelligently(p. 63)." He goes on to state that he dreads what would happen if they read their math problems this way. Now he apparently doesn't understand visual reading or really how to develop the skill, but he does seem to unwittingly understand a good deal about background information. Having a large background in a certain area should certainly significantly affect your speed and especially your reading techniques. To debunk speed because of a person's background information is highly ironic: what needs debunking is the method of reading which taught him to read everything at the same speed, whether it was a *Sports Illustrated* article or a math text book, irrelevant of his background knowledge.

If to read "fairly" means to come to the material with no prior knowledge, then nothing can be read. You cannot read unless you already know the words, and the better you know the words the faster you can, or should be able, to read them. And at last the reading world seems to be better prepared to deal with meanings and sense and comprehending rather than purposeless rate and meaningless word-by-word processing.

Today, surely we know that speeded reading can be done, whether that means that we can teach most people to double their speed, or triple it, or whether it means to achieve rates of several thousands of words per minute. (See Berger, 1966, or Staffer, 1962) At least we know through a fair amount of research and a great deal of experience that we can make a statistically significant increase in rate. It would be far wiser to spread the knowledge of what we know we can do and leave any quibbling about high rates to research situations.

With the knowledge that speed reading can be taught, we should have also learned through the 60's that the need for the skill is tremendous. This is surely relfected in the tremendous numbers of persons flocking to commercial reading schools and the increasing numbers of such courses being offered in our colleges and universities. The formal training of reading is left off so early in the schools and so much is left untaught. Students seem to have never been taught to read in a method any more advanced than that which is taught up to and through the sixth grade. If they have an enlightened English teacher she might teach them the value of previewing; another teacher might teach them some study techniques other than just reading the page the same way that they would a magazine. Learning how to set a purpose in reading, how to increase rates, how to adjust rates to meet your purpose in different materials, how to be flexible, all these skills are eminently teachable and need to be taught. And studying, which is a logical extension of reading, is never taught in our schools. Isn't it amazing that we go to school to learn and yet we never learn how to learn? We have the knowledge, we have the methods, yet there are still so many schools without these courses and not nearly enough trained personnel to even begin handling the situation. This must be the first challenge of the 70's: simply enlightening the school administrators and parents to this important need, training our teachers to be able to fulfill it, and not neglecting the important aspect of making our future teachers in our schools of education aware of the situation.

What is needed to teach speeded reading? Primarily a well-trained instructor and a few hundred dollars of paperback books. To review the process itself, what happens as we train a fast reader is very easy to understand. Appreciating the training of the reader is quite similar to understanding what happens when a person goes blind. The blind person hears exactly the same sounds as the person who can hear, yet *he can discern more information from what he hears*. Thus it is with the fast and the slow reader: the slow reader can also scan over a page, but he cannot discern as much information from what he sees and finds it impossible to understand how the trained or naturally fast reader can perceive so quickly. The training process is also simple to understand: as the blind man has learned to hear perceptively by not being able to depend on his sight, so the reader is trained to read visually by not being allowed to depend on inner speech. By training the reader through high speed drills, he goes much faster than he can possibly hear all of the words and thus begins to learn to discern more from what he has seen.

Evelyn Wood's popularization of the hand as a pacer is ingenious. It is so eminently flexible and of course it is always available--and it costs nothing. Furthermore, more than one person has cited the idea that it possibly acts as a replacement for inner speech, one motor activity being substituted for another (Fessiz, 1971). With this equipment, the development of speed is relatively easy: using the hand to pace your eyes down the page, the student must learn to drill at rates far in excess of those at which he has a lot of understanding (which at a slow rate comes through inner speech as well as visual perception). He must drill with very limited comprehension in order to build up confidence in his ability to perceive information visually at higher rates of speed.

We have found that the key factors to success in teaching this skill are a great deal of positive reinforcement at every step of learning this skill, and a very positive and reassuring attitude on the part of the teacher. We find that the teacher is most important: a dynamic, well-trained teacher does well in teaching this skill. And the teacher must be able to perform the skill as well. I'm constantly alarmed at the number of reading teachers who wish to teach this skill without ever taking the course or experiencing learning it. Anyone who thinks that an intellectual understanding of the skill is sufficient to teach it will be in for a rude shock.

If we know how to develop speed and efficiency in reading, what will the new challenges of the 70's be in addition to instituting the new techniques and meeting the current needs? Much reasearch needs to be done in visual reading. The term itself needs to be carefully defined, does it imply totally visual perception? Do we, can we, or should we even try to eliminate inner speech? We need to explore new methods of testing and measuring to measure and test the new things that are happening in these days when we are doing things which have exceeded physiological limits.

In our experience teaching hundreds of thousands of persons to read faster, we find that one of the problems is maintenance of the skills. While extensive research by the Grudin / Appel / Haley Research Corporation (1970) has shown that a majority retain a significant increase, there is room for much more work in this area. We train readers who always read and they should continue to improve, as someone who continues to type regularly always improves. But teaching visual reading is not unlike teaching a foreign language: it is much more comfortable to express yourself in your own tongue, or read the old way, and unless you keep using it it will get very rusty. This suggests that we should begin teaching it at a much earlier age--possibly beginning in the seventh or eighth grade, and the students' other teachers should be taught the new reading techniques so that they can encourage them to employ them in their daily reading. Certainly the habits would become more firmly engrained in this way then if we begin by teaching adults who are already confirmed word-by-word readers.

Another challenge lies in teaching time and value. C.N. Parkinson (1957) states that work will expand to fill the amount of time available. I suspect that reading rates do the same thing: they slow down to fill the time available. If people truly desire to read faster, because they really want to read more, then they will probably have to begin to learn how to evaluate what they read and what they want to read. Beginning with their own lifetime, they must begin to decide which books are worth reading, because they will never even make a dent on all of the books published. This is a question of values which must be taught beginning at an early age. When people begin to realize that time is one of the few things that they cannot buy, and that it is so limited, then they can begin to make evaluative choices. Once value has been placed on reading material, then a time allotment can be made and the reader can decide how much of his time the book or material is worth. Only through setting and maintaining a time goal will he be able to maintain his faster reading rates. We find it is relatively easy to train someone to set a proper time goal and achieve it in the classroom, but we must reach out and learn how to teach him to do this for himself for a lifetime.

There is certainly room for exploration of rapid reading teaching techniques to other reading problems. The techniques which Evelyn Wood popularized are not dissimilar to those which Jeanne Chall (1967) advocates for teaching reading, in that they initially emphasize code rather than meaning. We have had some successes in using our techniques with retarded and handicapped readers, and this should be explored more thoroughly.

Thus for the 70's we need to meet first of all the enormous challenge of introducing into our schools what we already know, we need to do further work and research to find out how it improve our teaching so that our students can continue to improve and use their new techniques throughout their life, not only reading faster but reading better.

In 1962 Stauffer pleaded at the 44th annual education conference at the University of Delaware whose theme was speed reading that:

> Needed among professionals are improved communications, the avoidance of fixed opinions based on inconclusive evidence, and open-mindedness by those who have vested interests. This is not the time for sniping and snapping but for more and better research. We must decide whether or not literate man is capable of reading faster than he can talk, faster than he can cleverly assemble ideas by skipping and snatching, and whether or not he can read at a rate that is as fast as his ability to think (p. 49).

Today we know that such fast reading can be done. Now in the interest of sharing our knowledge there is still the need among us for improved communications and open-mindedness and most of all a concerted all-out effort to proselytize and bring our developments to our fellow readers.

REFERENCES

Berger, A. Effectiveness of four methods of increasing reading rate, comprehension, and flexibility. (Doctoral Dissertation, Syracuse University) Dissertation Abstracts, June 1967, *27*, 4160A. Ann Arbor: University Microfilms, Order No. 67-7104.

Chall, J. *Learning to read: the great debate.* New York: McGraw-Hill, 1967.

Ferriz, J. Interview with Mary Gussman. In P. C. Kump (Ed.), *Evelyn Wood Reading Dynamics Instructor Training Manual.* New York: Diversified Education and Research Corp., 1971.

Grudin / Appel / Haley Research Corp. *A study of customers and prospects for the Evelyn Wood Reading Dynamics program.* New York: the Corp., 1970.

Parkinson, C. N. *Parkinson's law and other studies in administration.* Boston: Houghton-Mifflin, 1957.

Rauch, S. J. Speedreading: how to debunk numbers. *Journal of Reading,* Oct. 1971, *15,* 63.

Stauffer, R. G. Speed reading and versitility. In R. G. Stauffer (Ed.), *Speed Reading: practice and procedures.* Newark, Del.: University of Delaware, 1962. Pp. 41-49.

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MULTI-LANGUAGE RAPID READING
(OR, THE TOWER OF BABEL REVISITED)

"Fantastic! Utterly fantastic!" "What in the world have I been doing these past six years?"

The above were the exclamations of two foreign language teachers after observing a group of 19 high school students read rapidly in French and Spanish at speeds up to 35,000 words a minute. One of these students could also read up to 50,000 words a minute in English. The other 18 did not achieve higher speeds than 30,000 words a minute in their native language. All could read rapidly at 5,000 or more words a minute in all three language. All scored 65 % or better on teacher-prepared tests over different materials written in the three languages.

Some of the 19 had previously had courses in one or the other of the foreign languages, while nine had had no trianing in either French or Spanish. The highest reading rates scored by this group on foreign language tests just prior to the beginning of this program was 95 words a minute with 85% comprehension in Spanish, and 79 words a minute in French with 80 % comprehension. The highest rate in the English reading tests for this group was 385 words a minute with 85% comprehension.

At the close of the Multi-Language Rapid Reading Program in high school nine weeks later, the highest reading rate in Spanish was 35,000 words a minute with 75 % comprehension. This was made by a girl who was in her third year of Spanish. The high score in French was made by a girl who had had no previous training in either language. She scored 25,000 w.p.m. with 80 % comprehension. No student scored less than 750 words a minute in either language, with 65 % the lowest comprehension score.

(This was made by a Spanish teacher.)

In other classes of a similar nature in junior high the scores were higher overall, but there was a much greater variance in the comprehension scores. The scores here ranged from 90,000 words a minute in Spanish with 30 % comprehension to 2,500 words per minute with 85 % comprehension; and the scores in French were much the same except that the speeds were a little lower.

A total of 118 students, most of them in high school and junior high school, were enrolled in this Multi-Language Rapid Reading Program. Twelve college students also partcipated.

The results of the program demonstrate to this writer that the teaching of foreign languages can be speeded up considerably. Students can learn much faster when they are presented with more material and are shown how to use it rapidly. The students in the program mentioned above were able to read in intermediate French and Spanish at the end of nine weeks. Why not? They were encountering thousands and tens of thousands of words daily in the two languages. They *had* to learn to read in the two languages if by no other process than that of osmosis.

Compare these students with a particular class in first year Spanish in one of the same schools as one of the special classes. There the students read and discussed 90 pages in 180 days. This meant that they were reading about one-half page a day. Is it any wonder that after nine months of this kind of inane teaching the students, many of them receiving A's for their afforts, failed to be anywhere near proficient in that language? Of course, we usually do not expect one to become proficient in a language after only nine months of training in it. But why not? We had over 100 persons who acquired fair to good reading ability in *two* languages in *nine weeks*!

This writer has taught rapid reading to many thousands of people, children and adults. Included in the classes were the average and above average, the deaf and dumb and hard of hearing, the cerebral palsied and the mentally retarded. Adults and children from five years of age and up to 76 have been in the same classes. A pretty little blonde girl who had "turned five" just two days before she entered a rapid reading class could read 6,000 words a minute on a second grade level by the time she was five years and six weeks old.

The girl was probably the first child that age ever to read this rapidly, but only because whe was the first to be given the opportunity to do so. Since then others have done the same kind of thing. In a group of 18 second graders, for example, the reading scores from second grade books ranged from 2,248 words a minute with 100% comprehension, to 34,788 words per minute with 90 comprehension. In this particular group the lowest score on the comprehension test was 40% with a rate of 19,000 words per minute. Page-turning had long since become a problem for these second graders. The teacher who worked with the above group wrote:

> My results have proved to me that something must be done to the reading program in our schools. I feel that fifth grade or even

> third grade is too late to start.
>
> Children are fascinated with speed. If speed is stressed right from the beginning, then it will not all of a sudden be an added pressure for the child.
>
> After working with these children for eight weeks on speed reading, I am convinced that this program will work with the primary grade children as well, if not better, (she had previously worked with children of different ages) than with those in the intermediate and junior high school grades (Vander Sande, 1971).

Like many others, this writer has myriads of data of many kinds depicting the results of training in rapid reading. There are also data showing the results of similar training in mathematics and spelling. Some information has already been given above showing some of the possibilities in teaching people to read rapidly in foreign languages. In this latter respect we at this institution feel that a significant breakthrough has been made. We have demonstrated that it is possible to teach students to read rapidly in a language which was heretofore foreign to them, and to learn it in a considerably shorter time than is usually allowed.

Has there ever been a time in the history of man that such an accomplishment as this has been made? Further, has there ever been a time in our history when such an accomplishment is more necessary than it is now? Has there ever been a time when we have been more in need of greater learning at a faster rate? It is unthinkable that we should be forced to plod along the learning process at the same rate at which our ancestors went. Yet this is just what some of our reading "experts" are telling us we must do because, they say, it is physically impossible for us to see more and to react faster than did our progenitors of 200 years and more ago. They continue to do this despite the stacks of statistics standing around proving the impossible to be possible.

During the NBC-Television Program FIRST TUESDAY on June 1, 1971, Dr. David Wark, of the University of Minnesota, stated that it is impossible for a person to see more than about an inch of print in one focus. He used a machine called "The Reading Eye-Two Camera" to demonstrate this "fact." He also stated on that program that it is impossible for a person, for this reason, to read more than 800 or 900 words a minute with good understanding.

Many of the students of this writer saw that program and had a good laugh. In their own class in Reading Improvement the average rate in words per minute was 3,128, with an average comprehension score of 78 %. This average rate of 3,128 did not include the scores of the six highest students in the class, two of whom were also reading rapidly in three languages. The scores of the six were so high that they were not included in the others for fear of distorting the average and making it a lopsided affair.

In conversation with Dr. Wark a few months earlier this writer had asked if he had attempted to use the Reading Eye- Two Camera on a person who read in a direction different from the traditional left-to-right. He answered no, he had not. Still earlier he stated in a meeting of the North Central Reading Association (Flint, Michigan, Oct. 31, 1969) that "there is no other way to read," meaning no other direction to read.

Many others agree with Wark, including Della-Piana and Spache.

> So much attention is given to the high speed of silent reading in the press and special courses that a brief mention might be made here of the argument by Spache (1962) that 800 to 900 words a minute is the maximum silent reading speed physiologically possible...
>
> Spache's argument rests on the assumption that by "reading" one means reading most of the words on a page, and on the fact that the maximum number of words the eye can possibly see in one fixation during continuous reading is 2.5 to 3 words. Minimum fixation time is equal to one-half second and minimum time for the sweep to the next fixation or return sweep to the next line is one-thirtieth of a second.
>
> Spache's position is based on current data. Of course, it is possible that just as swimming and high jump records are continually broken, the maximum word-per-fixation record may sometime be broken. But as the data now stands, speeds beyond 900 words a minute are attained by skimming and scanning and not by rapidly perceiving most of the words in the text (Della-Piana, 1968, p. 83).

It is obvious that none of these gentlemen has carried his experiments far enough. None of them seems aware of the fact that many people actually see and read better in directions other than from left to right. Indeed, these gentlemen seem to have decreed the way in which the brain operates. We should point out to them that thinking is not necessarily a left to right process, nor is the brain confined in its operations to any one direction or method. If the experimenters use only one method or direction they may certainly expect to obtain results which are narrow and limited. It appears that this is what has happened in the case of the users of the Reading Eye-Two Camera.

The writer once asked one of the users of this camera if he had attempted to track the eye movements of a person as that person was reading four or five lines of musical notes across a page. The answer was *no*. When asked what he thought he might find if he tried it, the answer was, "I don't know. And anyway, what would it prove? People simply don't read more than one line at a time in reading."

The rediculousness of this situation becomes apparent immediately. The organist sometimes reads four or even eight lines of musical notes across the page and down the page at the same time. How can he possibly do this if the human eye is limited as Spache and others say it is? In the interest of proving their scientific findings it would appear that they must widen their thinking and their experiments.

This writer can produce scores and hundreds of people who can see entire paragraphs and pages at a glance, seeing the words in literally dozens of different ways or directions. Some read in a zig-zag fashion, down the page and up the next page, some go straight up the right hand page after going straight down the left hand page. Several students read the right hand page first then the left hand one.

There are probably as many ways of reading the words on a page as there are people in the world. The fact that we have limited ourselves and others to one way does not preclude the many other possibilities. We should be careful not to impose our own limitations on others, as some of the reading "experts" have been doing. This writer firmly believes that this is one of the reasons for our dreadful reading situation in this country now. We have allowed others to impose their limitations on us to the extent that we have come to believe that theirs' are common to us all.

The human brain is not geared or patterned to one way of doing something. Or, if it appears to have been so patterened, we can "unpattern" it, often with but little effort. For example, in a current reading class a fourth grade teacher reads across *both* pages in one sweep–*from right to left*. When asked how she does it, she replied, "I don't know. I just do it, and it makes sense to me." To the class it had been suggested that there are many ways of seeing and reading words, and this had been one of the ways suggested. A few seats from her is a school principal, who also teaches kindergarten. She reads the opposite direction, from left to right, but sweeps across both pages without moving her eyes down and up, or up and down. Another member of the class reads *up* the left hand page and down the right. All read with understanding, the kind we call "book report comprehension."

A first grade teacher in the same class says that her first graders "are running away from me in reading. They turn the pages so fast I just know they can't possibly be seeing all of the words there. But then I ask them to tell me what they read, and they do it! It's crazy."

In the light of the tremendous amount of evidence pertaining to the positive results of various rapid learning programs, I strongly suggest that vigorous efforts be made to persuade the writers of textbooks in reading, math, spelling and the foreign languages to propose and outline methods and techniques of learning which will bring about greater learning at much faster rates. Certain it is that our present textbooks suggest little that was not being suggested 15, 20 and 30 years ago. Phonics, drill, vocabulary lists, word and sentence exercises, etc., all have their proper places, but certainly not the places to which they have been traditionally assigned.

It is "plumb dumb" of us to continue to assume that the human eye and mind are limited to seeing and recognizing one word one inch in length, when the good musician may see and recognize entire musical scores at once. It is "plumb dumb" of us to assume that the human brain is limited in any manner whatsoever, unless due to physical damage. We have been done a great injustice, and that injustice is being handed down to the third and fourth generation by the writers and publishers of textbooks which they sell to the schools.

I believe that it is high time, even past time, that our "educators" become "educable."

REFERENCES

Della-Piana, G. M. *Reading diagnosis and prescription*. Boston: Holt, Rinehart and Winston, 1968.

Spache, G. Is this a break through in reading? *The Reading Teacher*, 1962, *15*, 258-263.

VanderSande, M. Panoramic reading in the second grade. Unpublished manuscript, Division of Education and Psychology. Canton, Mo.: Culver-Stockton College, 1971.

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MEASURING DEGREE AND RATE OF VISUAL AWARENESS DURING GROWTH IN RAPID READING ON TELEVISION

In 1963, rather than be caught in a false-dilemma of choosing between two increasingly polarized positions, I chose an eclectic one with regard to rapid reading (Schale, 1964). Consequently, I devised the 2R method (1965) which involves both traditional reading and inclusive skimming. It is not a simple paper-back skimming method (implied definition of speed reading); Nor is it a method confined exclusively to seeing all the words clearly line-by-line in the traditional way (implied definition of efficient reading). But it is predicated upon development of the entire reading process as defined by Robinson (1966) : word perception; comprehension; assimilation; reaction; and rates of reading (dependent upon and accompanying success in the other four). Moreover, it emphasizes when to read novel ideas horizontally and when to skim familiar material vertically.

REVIEW OF RELATED RESEARCH

In 1962 polarized positions connoting speed reading vs efficient reading began to emerge. Spache (1962) observed the foveal area of the eye is responsible for visual acuity. Previous studies of filmed eye movements revealed fast readers grasp 2 to 3 words per fixation. This is within the 1.2 inches range of central vision. Since clarity falls off quickly in the peripheral area beyond this span, he argued one must see all the words to be considered reading. Moreover, existing studies revealed the average duration of fixations was 1/5 second. He thereupon calculated the physiological limitations of reading faster in the traditional horizontal line-by-line reading. Three words per fixation multiplied by 1/5 second (15 words per sec.) multiplied by 60 seconds per minute are 900 wpm–the estimated maximum.

In contrast, Wood (1962) advocated a vertical method based on observations of 15 extraordinary people who seemed to read straight down the center of pages. She vigorously asserted her students were not just skimming but comprehending what they saw. She offered no theory nor controlled research to substantiate her position. But by 1967, Berger conducted a carefully controlled study of paperback scanning (similar vertical method). It supported the claim that adequate comprehension could be grasped if the material had a simple flowing stream of familiar ideas.

In additon, questions about traditional eye movement studies were raised by Guba and Wolf (1964). They studied children's eye movements while viewing educational television programs. They reported the eyes moved continuously. Although they did not televise reading materials at this time, their study has implications for discovering new dimensions in vertical and horizontal reading.

A related area in rapid reading focuses on Neisser's (1967) researcah on visual and multiple search. For example, he trained subjects to search 50 line lists of letters for single letter targets. With training, his subjects could find 10 different letters simultaneiusly. It took no more time than it did to find one letter. He concluded:

> However, ten targets is not a remarkable number in terms of human cognitive capacity. The experienced readers in a newsclip agency are a case in point. Such a reader can search through the daily paper at over 1,000 wpm, looking for any reference to the agency's clients, of whom there are usually hundreds. The feasibility of multiple search in such a practical context suggests that our own results are not due to artifacts or to demand characteristics. (p. 70)

Examination of experiments in forced choice and subception also suggest future directions. Referring to Lazarus and McCleary's work, Neisser defines subception as "...the subject's use of information obtained from a subthreshold tachistoscopic exposure (p. 129)." For an autonomic response within a subject, nonsense words were paired repeatedly to an electric shock. Lazarus and McCleary conditioned five nonsense words and tested subjects for subthreshold responses with the tachistoscope: the accurate recognition of the stimuli amid non-stimulus words was immediate.

Forced choice procedures were studied by Worthington and Dixon (1964). Items were flashed tachistoscopically so quickly and dimly that subjects insisted they saw nothing. But when forced to guess among choices of words, their responses were more accurate than mere chance.

With regard to rapid tachistoscopic exposures of this nature, a comment was made that after-images might interfere if a person read that quickly. In laboratory experiments, each flash is usually followed by a time lapse, and continuous reading is not projected. To this, I would call attention to the fact that each movie frame is shown on the screen at 1 / 24 second. People have little trouble comprehending the merging pictures. Adler (1965) implies the after-images can be wiped out at will, when fixing attention on new stimuli.

Although Neisser had reservations about forced choice, he concluded that verbal presentations of an entirely familiar word tachistoscopically at high rates is possible and within the theoretical framework of visual synthesis and verbal memory. But he says, "reading for meaning, we continuously take account of new constellations of words to construct novel thought processes." For the present, therefore, "repid reading represents an achievement as impossible in theory as it is common place in practice (p. 136)."

THEORETICAL DEFINITIONS

From the preceding research and statements, it should be obvious that rapid reading is not intended for materials which, to the reader, are novel, highly technical, poetical, or evocative to creative thought. The point is, however, it is appropriate for straightforward informational materials which are highly familiar to the reader.

Rapid reading becomes theoretically possible within that same framework of visual synthesis and verbal memory mentioned above when the following four mechanisms are operating fully within the trained reader: familiarity with the content; anticipation of the linguistic structure; visual awareness of adequate cues; synthesis of complete meaning from these cues.

During rapid reading of familiar materials, the reader can anticipate the structural flow of the author's thought based upon his experience with the language itself. However, he must be trained to be aware of grammatical cues as well as more words within his span of visual acuity. Finally, he must be able to synthesize what he sees into meaningful patterns and react to them.

In addition, there are three aspects of human perception which may intermingle and control rapid reading by degrees, depending upon the variable of the situation. These perceptive aspects are the: *physical* (visual unless one is blind); *emotional* (studies of perceptual defense reveal toboo words alter conscious thresholds); *cognitive* (comprehension).

Spache clearly addressed his limitations of traditional horizontal reading rates to the physical aspect of perception. And it is quite appropriate for the controlling variables. Most people would do well to grasp meaning or satisfaction at rates as fast as 900 wpm if reading unfamiliar or poetical materials. These demand a high degree of reinforcement from inner speech. That also means one must be able to see words clearly in order to say many of them. Thus the key factor to traditional rapid reading is the need to follow sequenced patterns of speech, often at average look-and-say rates of 1 / 5 second per fixation.

On the other hand, there is another dimension to the physical limitations of the eye which affect vertical skimming. As stated earlier, scientists reveal the normal eye can grasp 1.2 inches of print in the horizontal reading span. In 1965 the writer observed the pupil of the eye is round which means that the average person can see a diameter of 1.2 inches almost circularly. The reader, therefore, should be able to grasp 14 words of pica type within the span of a half dollar. That means that if a person could be trained to skim vertically the familiar content in narrow newspaper columns, taking up to 14 words a fixation (seeing a 2 to 3 line unit simultaneously) at 1 / 5 second, his rate might be 4,200 wpm. And physiologically he could be seeing all the words! If his rate is less than 1 / 5 second, as gifted readers find, his rates might seem incredible by traditional stundards. But the gifted succeed only under ideal and limited conditions.(See Schale, 1970)

For at least 95% of the population, most of the time, however, the question is, even if a person does see all the words in an elliptical span, can he synthesize what he sees meaningfully? Physical perception alone is not the controlling factor in rapid reading. It must be accompanied by cognitive perception.

EXPLORATORY TV STUDY

During the weekly RAPID READING series, a cooperative venture of the Community Relations Department of CBS-TV in Chicago and Northwestern University (Schale, 1971), a tachistoscopic challenge was presented to the audience along with attempts to increase their reading rates to 1,000 wpm with good comprehension on continuous texts. This was the first time circular spans of words were flashed on a TV screen (or any screen), as far as is known. Unfortunately, the opportunity to innovate this program came suddenly, and there was not time to do a controlled study.

The purpose of the T-scopic Challenge was to measure rate and degree of visual awareness. That is, to measure the number of words (up to 14 words in a circular span) at 1 / 50 second. The first fifteen people who responded to the appeal for feedback on the tachistoscopic test and who returned progress charts from the *Rapid Reinforced Reading Manual* formed the sample. They ranged in age from 12 to 73 years. The average was 40 years and they were two-thirds male. Each week the number of words flashed on the TV screen at 1 / 50 second increased until a sentence of 14 words appeared within the span of a half dollar, the theoretical physical limit of visual acuity in reading. The concepts were familiar. This device, indidentaly, was not used as a teaching aid, but as a measuring instrument. The training in rapid reading came throuhg projecting articles on the TV screen paragraph by paragraph at increased rates, then asking comprehension questions according to the 2R (reinforced reading) method.

The average subject could grasp up to 7 word sentences (on familiar topics) in a circular span at 1 / 50 second, such as:

It is
easy to
grasp this
span.

This is consistent with the theory--rapid reading training does increase visual awareness of larger spans of print; and rates of processing these spans can be accelerated without loss of comprehension, provided the patterns of print are familiar. However, the dramatic potential for reading rates suggested by theory and fact on these tachistoscopic tests was not realized in the actual reading situations. The progress charts returned by those who sent for and completed the self-instructing *Rapid Reading Kit* revealed the average person almost achieved the goal of the course. He began reading 9th grade reading level material at 350 wpm with 67% comprehension and finished with 939 wpm with 79% comprehension. With the help of a live teacher and deliberate training beyond 1,000 wpm perhaps larger gains could be made. It warrants further investigation. Although this study is too limited for definite conclusions to be drawn, the gap between theory and practice probably will remain distant for all but the gifted for quite awhile.

Future directions in the study of the rates of reading aspect should include expanded tachistoscopic research with verbal behavior and its implications for rapid reading.

REFERENCES

Adler, F. H. *Physiology of the eye.* (4th ed.) St. Louis: C. B. Mosby, 1965.

Berger, A. Effectiveness of four methods of increasing reading rates, comprehension and flexibility. *Perceptual and Motor Skills,* June 1967, *24,* 948-950.

Guba, E., & Wolf, W. *Perception and television: physiological facts of television viewing.* Columbus; Ohio State University Research Foundation, 1964.

Neisser, U. *Cognitive Psychology.* Appleton-Century-Crofts, 1967.

Robinson, H. M. The major aspects of reading. In H. A. Robinson (Ed.), *Reading: seventy-five years of progress.* Chicago: University of Chicago Press, 1966.

Schale, F. Using special modes of learning, grades IX through XIV. In H. A. Robinson (Ed.), *Individual differences in reading.* Chicago: University of Chicago Press, 1964.

Schale, F. Vertical methods of increasing rates of comprehension. *Journal of Reading,* April 1965, *8,* 296-300.

Schale, F. *Rapid reinforced reading kit.* Chicago: WBBM-TV, 1971.

Schale, F. Two gifted rapid readers. In G. Schick & M. May (Eds.), *Reading: process and pedagogy.* National Reading Conference 19th Yearbook. Milwaukee: the Conference, 1970.

Spache, G. Flexibility in reading. In R. G. Stauffer (Ed.), *Speed reading: practices and procedures.* Newark: University of Delaware, 1962.

Wood, E. A new approach to speed reading. In R. G. Stauffer (Ed.), *Speed reading: practices and procedures.* Newark: University of Delaware, 1962.

Worthington, A. G., & Dixon, N. F. Changes in guessing habits as a function of subliminal stimulation. *Acta Psychologica* (Amsterdam), 1965, *22,* 338-347.

PHOEBE HELM
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A PROGRAM TO TRAIN PARAPROFESSIONALS IN READING INSTRUCTION

If a six year old child entering school had any idea of the enormous complexity of the task of learning to read, there would be more dropouts after kindergarten. The child is faced with learning the skills of decoding and visualization, the linguistic structure of language, semantic variations in the meaning of words, reading for implied as well as literal meanings, and reading to evaluate ideas. Some children begin the mastery of these skills at six or younger; others have not progressed far along the way when they reach college.

Colleges which adhere to the open door policy are presently faced with the problem of students who have not learned to read well enough to cope with college material. The students need help *now*. Equally in need of help are younger students who, if they do not receive extra instruction in reading *now*, will not master the skills they need to function in a technologically oriented world. Who is to help them? Professionally trained reading specialists can help them; but they are all too few. The services of the few can be increased greatly by the use of trained paraprofessionals. (See Rist, 1971, or Rouche, 1968 for more examples.)

PARAPROFESSIONALS IN A COLLEGE COMMUNICATION SKILLS LABORATORY

As a community service, Jackson State Community College has developed programs of training paraprofessionals in the field of reading and communication skills. One program is now in use in the Communication Skills Laboratory of the Division of Technology of Jackson State Community College; the other program, planned for younger children, is presently a pilot program.

The paraprofessional program for the junior college reading and study skills center evolved out of necessity. The number of college students needing assistance in meeting academic standards was too large to be helped by the professionally trained personnel available. Data on one hundred twenty-five technology students at Jackson State Community College (1970-1971) revealed that over 60 % of those students had vocabulary skills inadequate for comprehension of college level textbooks. Two young ladies, each with a bachelor's degree, one in science and one in English, were added to the staff for the purpose of tutoring in any subject in which students were experiencing difficulty. The young ladies served as counselors and tutors, even auditing courses unfamiliar to them in order that they might be of more help to students.

During the first quarter of their employment, the paraprofessionals' training in reading instruction was largely incidental. They read professional books concerning remedial and developmental reading. By observing and working with the reading specialist, the trainees became familiar with diagnostic and corrective techniques used in assisting students with reading problems.

Because of an increased enrollment and the enthusiasm shown by the paraprofessionals, the administrators decided to allow each of the ladies to teach one three-hour course in Communication Skills in addition to their tutoring load. Under the supervision of the reading specialist, the paraprofessionals developed a program of remediation for each of their students.

The ladies did a splendid job relating with their students, often being responsible for keeping discouraged students in school. One student enrolled in Communication Skills was considered essentially unable to learn. However, through the keen insight of one paraprofessional, it was discovered that he had good comprehension on written materials but could not comprehend oral directions nor respond orally. The paraprofessional took the initiative to have this student checked by a speech therapist. It was discovered that his student had very poor auditory discrimination skills. He was unable to distinguish between such words as school and cool; he recognized and used very few blends. We are now investigating the various sources available for funding the therapy he needs.

Although little valid data could be gathered over such a short period of time, the trainees gained in self-confidence and skill, as did their students. It seems significant that both paraprofessionals at the junior college level are now pursuing graduate courses in reading.

A PROGRAM TO TRAIN READING TECHNICIANS

The success experienced with this group inspired the development of a proram to train paraprofessionals as reading technicians. The program was planned by the Communication Skills Laboratory of Jackson State

Community College, with the assistance of the Children's Clinic of Jackson. It is anticipated that college credit will be offered for the training. (See also Gomberg, 1970 or Vellutino & Connolly, 1971 for more program concerns.)

Planning the Program

The objective of the training was to teach paraprofessional personnel to become proficient enough in the instruction of reading skills to assist disabled readers. The need for such personnel was evidenced by: the large number of disabled readers; the shortage of reading specialists; and, the lack of money sufficient to afford specialists for instruction of small groups of students. Even though the need for paraprofessionals was evident, the following questions arose: Would the paraprofessional be well received by the public? Where would paraprofessionals be employed? What kind of tasks would the reading technician be able to perform? How would technicians be selected and trained? Finally, how would such a program be funded?

supervisors, reading specialists, classroom teachers, pediatricians, and parents were queried regarding their reception of the paraprofessional in reading. After the assurance that trained personnel would be utilized as tutors of reading in classrooms, in reading centers, in pediatric clinics, and for individual students needing extra help, preparations for the training program began.

Sources for Paraprofessionals

Suggested as sources of paraprofessional trainees are: college students; mothers who want employment during school hours only; young mothers who want a few hours out of the house each day; company wives (newcomers to the area who have fewacquaintances and desire to become involved in local activities); elderly people; and groups of concerned citizens who sincerely wish to be of service to those who need help.

Philosophy of the Staff

It is the philosophy of the staff of the Communication Skills Laboratory that the reading technicians would not become qualified to diagnose, prescribe for, and cure all reading problems. However, technicians should have a basic understanding of the reading process and be able to follow a prescribed program of remediation. Remediation in reading is usually slow-moving, requiring a highly structured program with much practice. The use of paraprofessionals thus permits the reading specialist to perform the job for which he or she was trained.

Tasks for Reading Technicians

Paraprofessionals have been used successfully in Project 16, a Title III ESEA total school reading program. Some tasks which trained reading technicians are capable of performing are: administer skills checks (not evaluate or interpret them); give standardized tests; test visual acuity with the telebinocular; and give auditory acuity and discrimination tests. They may also be taught to assist students with programmed instructional material. They may help students use audio-visual material such as the overhead projectors and individual filmstrip viewers; they may show films and film-loops to groups of students. They may write stories from dictation, using the language-experience approach.

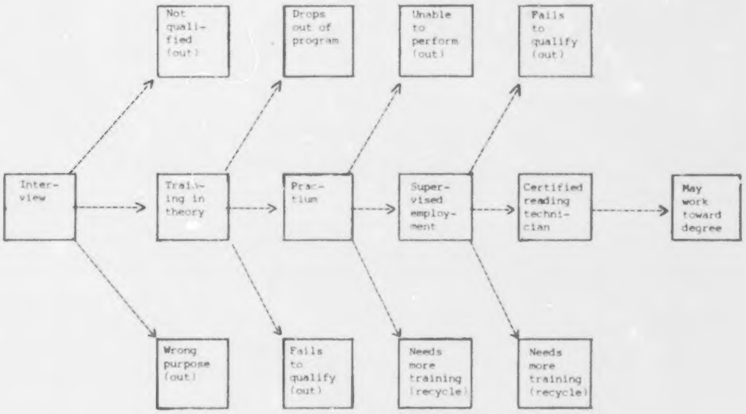
Reading technicians can help students in building perceptual skills using block patterns, visual memory games, rhythms, and the balance beam. Word bingo, word checkers, and linguistic games may be used by paraprofessionals. Phonic response cards may be used with groups of students. Reading technicians can conduct practice exercises with basic word lists, blends, and word families. Programs for use with tape recorders may be devised and used. The use of materials such as specific skills exercises and study skills practices may be supervised by reading technicians. Paraprofessionals can construct cloze exercises and use them with individual students or with groups.

Phases of the Training Program

The training program is broken into three distinct phases: theory, practium, and supervised employment. It is suggested that college credit be offered as follows: three hours each for the theory and practium phases of the program; and six hours for the supervised employment phase.

Table 1

A FLOW CHART FOR TRAINING PARAPROFESSIONALS IN READING A PERFORMANCE CURRICULUM AFTER YARRINGTON (1969).


Not qualified (out)
Drops out of program
Unable to perform (out)
Fails to qualify (out)
Interview
Training in theory
Practium
Supervised employment
Certified reading technician
May work toward degree
Wrong purpose (out)
Fails to qualify (out)
Needs more training (recycle)
Needs more training (recycle)

During the theory phase, the trainees will be tested for knowledge of reading skills and be provided with instruction in the methodology of teaching reading skills and the preparation and use of materials. Training under this phase will be comprehensive and specific. The duration of the period will be approximately four weeks, depending on the ability of the students and the intensity of the training offered.

In the practium phase, poor readers will be selected on the basis of psycho-educational diagnosis. The primary purpose for this phase of the project is to ascertain the effectiveness of the paraprofessional as a tutor in reading. Each day may be divided as follows: preparation of materials and consultation with the reading specialist, tutoring of students, and in self-evaluation or sharing with the group.

The supervised employment phase will involve periodic visits by the reading specialist to provide on-the-job assistance to the paraprofessionals. A seminar will be held weekly with the reading specialist and the entire group of trainees to share experiences and materials. Upon successful completion of this training period, a certificate will be awarded to each trainee.

CHALLENGE TO THE PUBLIC AND TO THE PROFESSIONAL

Due to the limitation of time, only a pilot project has been conducted at this time. It was funded by a group of interested citizens. Application is being made for federal funds to conduct a comprehensive program in the training of paraprofessionals in the field of reading.

One thing that should be stressed is that with such minimal training the students do not become qualified to diagnose, prescribe for or cure all educational ailments, nor to tell teachers how and what to teach, nor to tell administrators how to run a school. Even if the educational system leaves much to be desired, they will succeed better in helping children, which is their main objective, if they work within the system.

Even with problems which will surely occur, the paraprofessional in reading instruction can do a noble job. It is up to us as professionals to train them in order that we may provide competent services for the largest number of students at the least possible cost. And they need help *now*!

REFERENCES

Gomberg, A. W. Preservice reading instruction: a apprenticeship teaching program on campus. *Reading Teacher*, May 1970, *23*, 761-765.

Rist, R. C. Black studies and paraprofessionals—a prescription for ailing reading programs in urban black schools. *Journal of Reading*, May 1971, *14*, 525-530.

Rouche, J. E. *Salvage, redirection, or custody?* Washington: American Association of Junior Colleges, 1968.

Vellutino, F. R., & Connolly, C. The training of paraprofessionals as remedial reading assistants in an inner-city school. *Reading Teacher*, Mar. 1971, *24*, 506-512.

Yarington, D. J. A performance curriculum for training reading teachers. *Journal of Reading*, 1965, *8*, 21-24.

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PERSCRIPTIVE USE OF TUTORS IN ADULT EDUCATION

The search for instructional procedures that meet the needs of so many different people served by our rural junior-community college is an unending task. More and more, daily, our college is called upon to serve people from welfare, MDTA, rehabilitation, veterans—both remedial and rehabilitation—as well as those who can enter the main flow of normal students, bi-lingual migrants, rural poor, dropouts, and a host of adults who need attention to obtain job entry skills, education, the GED, and terminal program assistance to make it in college.

But, being a small college in a community of 12,000 and in a county of 20,000, we are unable to staff a number of programs on an on-going basis. Yet, we have an open door policy with easy access to serve these good yet unfortunate people in our service area.

What can be done? Our staff and administration has sought at times to aid these people in night programs. This was not enough. The availability of time related to their obligations wasn't appropriate. Therefore, the development of our tutorial program.

Note, we include in the definition of adult, all students sixteen years or older. Because we believe in the merits of individualized instruction based on the needs of the person seeking assistance, we moved heavily into the tutoring approach two years ago. To turn a person's education over to a tutor demands responsibility both on the part of the supervisor as well as the tutor, and an understanding on the part of the person being tutored. How is such an understanding reached? In our counseling center we have a study skills counselor whose function it is to provide on the spot as well as long-range assistance to people who are referred to him as well as students or people who drop in for help. The study skills counselor then determines what needs these people have in the area of skills, content, motivation, etc. and then develops a prescription plan. He meets with the tutor and tutee and goes over the plan to obtain mutual understanding and direction. Also, the place for the tutoring and materials are decided upon.

Recently, the college obtained a Title III grant which has provided an expansion in this area. In-depth, personal psychology conducted by a staff counselor explores motivation, concentration, personal goals, and career opportunities for the adults. Also a learning improvement laboratory supervised by an experienced adult educator has been provided. This lab is equipped with software as well as hardware in a variety of material and or developmental materials related to adult basic education, high school equivalency, background materials for academic as well as vocational--technical courses offered at the college. These materials can be used by the tutees as well as by the tutors.

The significance of this approach is two fold. First for the adult seeking fullfillment and development in an educational sense and secondly, for the tutor who is finding ways to help his fellow man.

What benefits accrue for the adult? The personalized counseling, the personalized curriculum and materials, and especially the personal touch and attention of the tutor has caused a number of these people to stick it out whereas when they were in regular MDTA or WIN-type programs they were forced to learn at the same pace at the same level as the group and this typically discouraged them. Now with a less trained person as a tutor they are gaining more in their retention, and attendance in the program has increased.

What benefits accrue for the tutor? Tutors are basically college students on Work Study. They ask to serve in the tutoring program. They are screened by the Counseling Center as well as their advisor and someone in their major field of study. They usually are not the A-student, but tend to be the pluggers. They receive approximately twenty hours of in-service primarily using the tapes *How to survive in college* made by Edwin F. Casebeer, Jr. of Purdue and published by Anacomp, Inc. of Indianapolis, Indiana. And depending on who they are assigned to work with, they obtain special background information and resourse material. Bi-weekly or at least once a month, they meet with the learning improvement lab supervisor as well as the Study Skills Counselor to up-date their technique in dealing with their tutees.

The benefits are simply that they find explaining material to other people gives them clarification. Secondly, they find their involvement with other people who are struggling to be quite rewarding. A number of them voluntarily go beyond the hours stipulated to help those assigned to them.

In summary, our college feels that it is coping with the rural community's needs in a way that has not been done before. It is not a perfect procedure, yet it is an honest effort to reach the variety of people who need assistance and admittedly want to better themselves.

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PREPARING PRACTITIONERS, COUNSELORS, AND DIRECTORS OF COLLEGE LEARNING ASSISTANCE CENTERS: AN INTENSIVE GRADUATE WORKSHOP

It is not the intent of the author in this paper to present a complete review of the available literature that deals with training programs for prespective instructors of college reading / study skills. However, a brief listing of published material that is readily available, although somewhat limited in scope and number of articles, will stimulate further study of the problem.

If one were to peruse the yearbooks of the National Reading Conference, College Reading Association, North Central Reading Association, and Western College Reading Association, he would find proportionately few articles on the training of college reading / study skills personnel.

In the nineteen Yearbooks of the National Reading Conference, for example, there are only two articles: one by Fry (1964) on the training of reading improvement teachers in underdeveloped countries, and the other by Carter and McGinnis (1970) theorizing on the needs of junior college reading therapists.

In the ten yearbooks of the College Reading Association, three articles deal with the preparation of college reading specialists. In the first, Wolfe (1966) listed four requirements for preparation of specialists: bachelor's degree and three years teaching experience; fifth year program leading to Master's degree; participation in professional activities; and one year service as intern. In another, Cooper (1969) reported the results of a survey conducted by Price of Appalachian State University and suggested that training programs for college reading instructors include internship, post-training workshops and institutes, and increased attention to reading diagnosis and corrective techniques and materials. In the third, Colvin (1969) discusses the qualifications and training needed by college reading specialists.

In the five volumes published by the North Central Reading Association, the only article that discussed training was a description by Kinne (1962) of on-the-job training for Purdue University graduate students who were preparing to teach in campus reading laboratories and extension classes.

In the four proceedings published by the Western College Reading Association, four articles are germane. In the first, Maxwell (1970) described the graduate reading program at UC Berkeley. It is a program similar to her original training program at the University of Maryland that she had described three years earlier in the *Journal of Reading* (1966). The program, a didactic course and practicum, includes seven topics and concomitant experiences in the following areas: program, philosophy and objectives; diagnosis; instructional methods and techniques; materials and equipment; problems affecting individual improvement; program establishment and administration; and program evaluation.

In the second article, Joff (1970) discussed seven objectives of college reading training programs in his Conference Presidential Address. He also reported to the membership that WCRA, along with other college reading associations, was participating with the Professional Ethics and Standards Committee of I.R.A. (1971) to develop a set of guidelines for college reading personnel that would include statements of their roles, responsibilities, qualifications, and standards.

In the last two articles, Ahrendt (1971) described a paraprofessional training program designed to alleviate the problem of expanding and overcrowded reading courses at the University of British Columbia and Beldin (1971) reported on Western Washington College's EPDA program to train inner-city communications specialists.

In addition to these articles published in college reading association yearbooks, two other sources, both concerned with junior-community college, can be cited. Price and Wolfe (1968) reported that a survey they had conducted showed clearly that there was a lack of qualified reading instructors. They then proposed a teacher training program to develop well-prepared teachers of college reading. Kazmierski (1971) summarized twenty-two sources relevant to the preparation of junior-community college reading teachers and proposed a doctorate of arts in the college teaching of reading as a solution to the lack of junior community college trained specialists in reading.

After reviewing all of these materials, it is the opinion of the author that there are very few training programs that produce college reading / study skills specialists. It is also the writer's opinion that most proposals and recommendations for such training programs are obsolescent particularly when describing the product as "anagnologists" (cf. Mazurkiewicz, 1966) or the program as a doctorate in reading. This emphasis on reading and university preparation severely delimits the usefullness of the trainee when he faces the real-life world of the college learner as described by Christ (196[illegible]) in a previous paper.

NEED FOR PROFESSIONAL TRAINING

It will not be denied that there is a need for professional training of college reading study skills specialists, or learning assistance practitioners as they will be henceforth designated in this paper. Nor will this thesis be argued here: the fourteen sources already cited can be reviewed for such argumentation. It would seem sufficient to remind the reader of four cogent considerations:

> the sheer increase in college student population along with a proliferation of learning assistance programs, particularly at the junior-community college level.
>
> an increased interest in the student as a learner and person.
>
> the changing role of the so-called reading teacher to one of learning facilitator. What Mazurkiewicz defined as anagnologist—a student of the art of reading—is unacceptable today in view of the tasks and behaviors needed by college students for academic survival and success. Instead, the terms, "learning assistance practitioner," or mathemagenicist (cf. Rothkopf, 1966) appear more apt as descriptors of college personnel who aid students to learn.
>
> the demand for trained personnel and the difficulty in finding them is a common problem shared by most college administrators who seek to initiate or maintain a learning assistance facility or program. Concurrently, the frustration in searching for a meaningful training program is a real problem for prospective college learning assistance practitioners.

It is in direct answer to this last need that the workshop, described in this paper, was designed and implemented.

GENESIS OF THE WORKSHOP

In late April, Gene Kerstiens, President of Western College Reading Association, presented the author with a list of names, addresses, and telephone numbers of UCLA graduate students who wished to be trained for positions in junior-community college and four-year college learning centers. The original proposal to UCLA called for an advanced workshop in which participants would participate in the author's systems approach (1971) to designing, organizing, and implementing a model learning assistance facility with emphasis on the use of computers as mediating agents for diagnosis and prescription. Subsequent negotiations with UCLA administrators, however, led to the establishment of the workshop entitled "Workshop in Current Reading Study Skills," as a graduate offering on the UCLA campus more suitable to the needs of the applicants. The workshop was described in an official flyer as follows:

> An intensive workshop for prospective reading study skills practitioners and counselors. Emphasis on learning and instruction strategies to help students to manage their time-increase their ability to read and comprehend their textbooks-make notes-take examinations-Reviews latest diagnostic and prescriptive materials and provides students with as yet unpublished material in the field. Includes field trips to Junior College Reading Study Skill Centers. Of value to professional teachers in the field of ENGLISH, LINGUISTICS, and ENGLISH AS A SECOND LANGUAGE as well as to those preparing for such careers.

The Workshop carried five quarter hours credit. A fee of $90.00 included appropriate materials to be used and retained by the workshop participant. Fifteen morning sessions of three hour duration were scheduled from July 6 - July 29.

Enrollment was limited to twenty-five students. The lateness of the decision to have the workshop, however, precluded the insertion of any announcement in the UC.A Summer Bulletin so that enrollment for the workshop totalled nine participants.

ACTIVITIES OF WORKSHOP

At the first session, participants were presented the following instructional strategies, adapted from Johnson and Johnson (1970, pp. 104-6), to read and discuss prior to formulating workshop objectives and program units.

1. Responsive Listening Notemaking–participants make notes on readings, presentations and demonstrations, individual listening, viewing, and workbook activities.
2. Workshop Demonstrations–the workshop director or invited resource personnel will demonstrate learning assistance skills, instructional strategies, materials, and equipment.
3. Diagnosis–participants will take appropriate tests and surveys and also give them to other participants or to college-age clients.
4. Individual Information Processing–participants will explore learning assistance materials both for the learner and for the learning facilitator. A "Hands-on Record" of this exploration will be kept by each participant.
5. Discussion–participants will form in groups of 3-5 members for social reinforcement of workshop learning and for reaction to presentations, demonstrations, and other activities.
6. Laboratory Experiences Drill and Skill Practice–participants will actually do learner activities typically recommended for college students who need learning assistance. Participants will record experiences on "Hands -on Record."
7. Comparative Analysis–participants will be asked by workshop director to compare learner strategies, materials, equipment. Checklists will be provided or will be devised in workshop.

8. Field Trips–participants will visit at least four college learning assistance installations. Following each visit, participants will have an opportunity to discuss rationale and operation of installation.

9. Group Work–participants may form small groups to explore common interests or problems in learning assistance skills.

10. Program Solving–participants will be given an opportunity to respond to a typical learning assistance director or practitioner problem. Solution will rquire participants to use bibliographies, professional articles, and other sources.

11. Projects–participants may develop workshop project in consultation with workshop director. Project may involve development of audio-tutorial units or adaptation of existing materials.

12. Resource Persons–personnel currently involved in learning assistance programs may be used to augment the workshop.

13. Evaluation–participants will be responsible for program and personal participation evaluation.

The workshop began with a pre-workshop evaluation of the participants in which they were asked to share pertinent biographical information, such as names, professional experience and memberships, present position, previous courses completed that seemed relevant, and their personal expectations of workshop outcomes. Participants were then asked to identify names of people, diagnostic instruments, major professional periodicals, bibliographic resources, and terms with which a working learning assistance practitioner would be familiar. The evaluation data helped the writer to understand some of the strengths and weaknesses of the participants so that the workshop could attempt to begin where they, the learners, were–or seemed to be.

Since limitations of space preclude a discussion of all the instructional strategies implemented during the workshop, only four will be described here.

Diagnosis - Strategy No. 3

Each participant completed the *Survey of Reading Study Efficiency* (Christ, 1968). After scoring and profiling their strengths and weaknesses, participants programmed themselves through as many of the 145 activities recommended in SR/SE *Personal Program Guide* as they wanted to, keeping a "Hands-on Record Sheet" of their experiences. Other diagnostic and achievment instruments were available for their use in reading, listening, phonics, critical thing, spelling, vocabulary, library research, and study skills.

Individual Information Processing, Strategy No. 4

Books and reprints of articles on the adolescent and adult learner, learning, reading study skills, instructional technology, systems design computer technology, tests and measurements, and counseling, as well as reading study skills manuals and workbooks, were available at the workshop facility for individual reading and use. In addition to the availability of this resource library, each participant received one personal copy of the following materials: *SR/SE Resource Book* (Christ, 1969), *Reading Materials Handbook* (Berger and Hartig, 1969), *Reading for Success in college* (1968), *Junior-Community College Reading Study Skills Bibliography* (Kerstiens, 1971b), and the ERIC/CJC topical paper on research and innovation in junior college reading programs (Kerstiens, 1971a).

Field Trips - Strategy No. 8

During the four week workshop, members went on field trips to outstanding learning centers or programmed instruction labs, most of which were described in available professional literature: El Camino College (Mathews, 1971), Los Angeles Harbor College (Newman, 1971), Los Angeles Pierce College (Rosenberg, 1971), Loyola University of Los Angeles (Christ, 1970), University of California at Los Angeles (Levinson & Pfeffer, 1971), West Los Angeles College, Los Angeles Paramedical Occupational Center, and San Bernardino Valley College (Williams, 1971). In addition, members were conducted through the ERIC: Clearinghouse for Junior College, located at UCLA. Each trip was preceded by an oral briefing or a reading of published material, often written by the facility director, describing the rationale, program, or materials of the facility. Following each trip, a critique session was held.

Evaluation Strategy No. 13

Of the six measures listed by Johnson and Johnson that could be used in evaluating learning programs–achievement tests; rating scales and checklists; self-evaluation; absences; open book test; and personal notebook–the workshop group chose self-evaluation as most suitable to evaluate their workshop experiences and learning. This evaluation was in four stages: an initial diagnosis of their expectations and expertise before the workshop began; an informal and subjective evaluation at the end of the first week; a second informal and subjective evaluation at the end of the second week; a detailed and critical evaluation to be shared with the other participants on the last day of the workshop; and a final evaluation one year after the workshop. The detailed and critical evaluation at the end of the workshop took the form of answers to ten questions adapted from the course evaluation originally devised by McInnis (1969). Some of the questions and individual participant responses are reproduced in the next section.

END-OF-COURSE EVALUATION

Early in the workshop, each participant was given ten questions and was asked to answer them thoughtfully, completely, and honestly as an end-of-course evaluation. Copies of their answers were to be given to their peers. Two hours of the final day were scheduled for this sharing of views and reactions. Of the ten questions asked, only excerpts from No. 1, 3, 8, and 10 are reprinted below. Initials following each excerpt identifies the respondent.

Q1. *What has the workshop done for me?*

"...has headed me in the direction I would like to go" (D.B.)

"...has exposed me to a lot of things I didn't know existed.

...has thrown me, violently and abruptly, into areas which seem active, vibrant, growing and alive, full of interested and interesting people." (C.C.)

"... has fulfilled the goals set for the first day. ...My confidence as a learning facilitator has been increased" (B.R.)

"has given me fuller insight into my interests, capabilities, and inabilities, different perspective on my occupation (EOP Director), further involvement and concern with the human race, and has left me mentally frustrated and a physical wreck" (N.U.)

Q3. *How am I different as a result of this workshop?*

"...I have decided to change the topic of my ESL master's thesis to one which will allow me to investigate further the rate of media-aided learning skills in the ESL classroom." (B.D.)

"I am sure I will plan my year's teaching differently." (A.D.)

"...in attitude. Before this course, I had planned to 'adopt' teaching methods I thought would be effective. Instead I now plan to 'adapt' these methods to the student's individual needs. ...I also realize that I cannot solve all student problems alone. Emotional, physical, and physiological problems must be handled by competent counselors – not by the learning facilitator." (B.R.)

"...this course has influenced me to change my mind about what kind of teaching I would like to do. I began the class planning to be an English teacher, I leave it hoping to direct or assist in directing a learning center." (S.H.)

"I have begun to think more and more of developing my own programs relative to the particular students I am working with. ...I have also discovered that I have the energy and the know-how (or can find out how) to construct or find material." (R.F.)

"I am different because I am aware of whole areas I was previously unaware of. ..." (C.C.)

Q.8. *Have my attitudes toward learners been affected by this workshop? How? Why?*

"...I have changed very little, I suppose, because I already was convinced of basic philosophy behind individualized or multi-media learning." (A.D.)

"I have become aware of the approaches one can take to individual differentiation in the learning situation." (A.G.)

"The workshop has demonstrated to me that machines well used can be much more effective and humane than many classroom situations and techniques."

"The course has brought me back to the needs and problems of the students again." (N.U.)

"This course has made me even more sensitive to the fact that educators have given less and less attention to the wants and needs of its users and more and more attention to seeing that 'the system' remains intact and functioning. By focusing on the concept of individualized approach to learning, and by giving us the opportunity to see places where this concept has been put into practice, this course, I feel, has put me into the groove in which education will be moving, will have to begin moving, in the years to come" (C.C.)

"...in the way that I think I can now react to students' needs more competently. I guess my attitudes were formed as I worked individually with students previous to this workshop – but my *ability* to aid them as learners has increased due to the workshop" (R.F.)

Q10. *What has prevented this workshop from becoming more effective for myself and others? How would I improve this workshop?*

"...if we only had more time. ... Also, actually working with students – diagnosing and treating them..." (B.R.)

"...I would like a longer period of time in which to familiarize myself with materials and their use. I also think that working with students would improve the workshop." (A.G.)

"...a more systematic presentation of some of the materials." (S.H.)

"Three main criticisms: 1) more time... 2) ...opportunity to talk with students... 3) we didn't get into probelm- solving projects... (N.U.)

"...this workshop has been too short. ...not enough group discussion...the instructor was right when he said that this class should have been held in a learning assistance center." (C.C.)

"...while I obviously would like to see more planning and structure by the leader, and more concentrated work by the students, I nonetheless appreciated the informal atmosphere we had, and the chance to get to know each other, the leader's great patience and inexhaustible supply of accurate answers.. But many of us have little time and money... We are not so different from the students we have...turn the screws a little! (A.D.)

"...obvious lack of time for more meetings and periods for absorption and reflection. ... A laboratory for us to operate in would be valuable (R.F.)

CONCLUSION

The workshop described in this paper is only one experience or module in a total preparation program for college learning assistance specialists and directors. A proposal for a more complete program is being made by me now. The proposed program incorporates many of the recommendations and successful experiences of professional organizations, commissions, and leaders. It advocates professional training and internship experiences to prepare learning assistance personnel at the practitioner and at the director levels. It eschews the master's degree in preference to a professional

certificate and suggests that any adult, with or without the baccalaureate, should be considered for acceptance into the training program. It further recommends that when the prospective trainee cannot come to the training environment that the environment go to the trainee, either through extension programs or via mobile personnel and facilities.

REFERENCES

Ahrendt, K. The Training and use of paraprofessionals in the college reading program. In F. L. Christ (Ed.), *Interdisciplinary aspects of reading instruction*. Western College Reading Association 4th Proceedings. Los Angeles: the Association, 1971. Pp. 8-14.

Beldin, H. O. Training communication specialists for the metropolitan intercity junior college. In F. L. Christ (Ed.) *Interdisciplinary aspects of reading instruction*. Western College Reading Association 4th Proceedings. Los Angeles: the Association, 1971. Pp. 15-19.

Berger, A., & Hartig H. (Eds.), *Reading Materials Handbook, Oshkosh, Wisc.: Academia Press, 1969.*

Berger, A., & Hartig H. (Eds.), *Reading Materials Handbook*, Oshkosh, Wisc.: Academia Press, 1969.

Carter, H., & McGinnis, D. Preparation of reading therapists for the junior college level. In G.B. Schick & M.M. May (Eds.), *Reading: process and pedagogy*. National Reading Conference 19th Yearbook (II), Milwaukee: the Conference, 1970. Pp. 45-49.

Christ, F. L. A pre-college summer reading /study skills lab. In G. B. Schick and M. M. May (Eds.), *Reading: process and pedagogy*. National Reading Conference 19th Yearbook (I), Milwaukee: the Conference, 1970. Pp. 58-64.

Christ, F.L., (Ed.), SR/SE resource book, Chicago: Science Research Associates, 1969.

Christ, F. L. *Survey of reading study efficiency*, Chicago: Science Research Associates, 1968.

Christ, F.L. The SR/SE Laboratory: a systems approach to reading/study skills counseling. In G. Schick & M. May (Eds.), *The psychology of reading behavior*. National Reading Conference 18th Yearbook. Milwaukee: the Conference, 1969, Pp. 212-216.

Christ, F. L. Systems for learning assistance: learners, learning facilitators, and learning centers. In F. L. Christ (Ed.) *Interdisciplinary aspects of reading instruction*. Western College Reading Association 4th Proceedings. Los Angeles: the Association, 1971. Pp. 32-41.

Colvin, C. R. Qualifications and preparation of personnel in college reading programs. In C. Ketcham (Ed.), *College Reading Association 10th Proceedings*. Easton, Pa: the Association, 1969. Pp. 138-142.

Cooper, L. R. Preparation of reading teachers for junior colleges. In C. Ketcham (Ed.), *College reading association 10th proceeding*. Easton, Pa: the Association, 1969. Pp. 57-63.

Fry, E. Training teachers for the improvement of college-adult reading in underdeveloped countries. In E. Thurston & L. Hafner (Eds.), *New Concepts in College-Adult Reading*. National Reading Conference 13th Yearbook. Milwaukee: the Conference, 1964. Pp. 55-57.

IRA Professional Standards and Ethnics Committee, *Roles, Responsibilities, Qualifications and Standards for College Reading Personnel*, (Field version of brochure) Newark, Del.: International Reading Association, 1971.

Joffe, I Should all reading teachers be certified? In F. L. Christ (Ed.), *College Reading Goals for the 70's*. Western College Reading Association 3 rd Proceedings. Los Angeles: the Association, 1970. Pp. 93-100.

Johnson, S. R. & Johnson R. B. *Developing individualized instructional materials*, Palo Alto: Westinghouse Learning Press, 1970.

Kazmierski, P. R. *Training faculty for junior college reading programs*, Topical Paper No. 24. Los Angeles: ERIC Clearinghouse for Junior Colleges, 1971.

Kerstiens, E. *Directions for research and innovations in junior college reading programs*. Topical Paper No. 18. Los Angeles: ERIC Clearinghouse for Junior Colleges, 1971. (a).

Kerstiens, E. *Junior-community college reading / study skills: an annotated bibliography.* Newark, Del.: International Reading Association, 1971. (b)

Kinne, E. W. Training inexperienced graduate students as instructors in a reading program. In A. Raygor (Ed.), *College and Adult Reading.* North Central Reading Association 1st Yearbook. Minneapolis: the Association, 1962. Pp. 97-103.

Levinson, B., & Pfeffer, C. A university learning center. In F. L. Christ (Ed.), *Interdisciplinary aspects of reading instruction.* Western College Reading Association 4th Proceedings. Los Angeles: the Association, 1971. Pp. 89-95.

McInnis, N. F. Getting with instructional systems and getting instructional systems with it. *Educational Technology.* April 1969, *9,* 40-43.

Mathews, A. Twenty days in august: an intensive program. In F. L. Christ (Ed.), *Interdisciplinary aspects of reading instruction.* Western College Reading Association 4 th Proceedings. Los Angeles: the Association, 1971. Pp. 96-98.

Maxwell, M. Training college reading specialists. *Journal of Reading.* Dec. 1966. *10*, 147-155.

Maxwell, M. What the college reading teacher needs to know about reading. In F. L. Christ (Ed.) *How can college students be helped to read better.* Western College Reading Association 2nd Proceedings. Los Angeles: the Association, 1970. Pp. 65-70.

Mazurkiewicz, A.J. Evaluating professional competency: the anagnologist: In C. A. Ketcham (Ed.) *College Reading Association 7th Proceedings.* Easton Pa.: the Association, 1966. Pp. 91-96.

Newman, L. What should we teach college students about reading? In F. L. Christ (Ed.) *How can college students be helped to read better. Western College Reading Association* 2nd Proceedings. Los Angeles: the Association, 1970. Pp. 71-81.

Pauk, W. *Reading for success in college.* Oshkosh, Wisc.: Academia Press, 1968.

Price, U., & Wolfe, K. Teacher preparation of the junior college reading teacher. In P. Berg & J. George (Eds.), *Highlights of the 1967 pre-convention institutes:* junior college reading programs. Newark, Del.: International Reading Association, 1968. Pp. 1-7.

Rosenberg, I. From ADAM to SAM: academic diagnostic motivation service to student academic motivation center. In F. L. Christ (Ed.) *Interdisciplinary aspects of reading instruction.* Western College Reading Association 4th Proceedings. Los Angeles: the Association, 1971. Pp. 121-127.

Rothkopf, E. Learning from written instructive materials: an exploration of the control of inspection behavior by test-like events. *American Educational Research Journal,* Nov. 1966, *3,* 241-250.

Williams, G., Jacobsen, P., & Arnold, J. Prescriptive teaching linked to a learning and tutorial center. In F. L. Christ (Ed.) *Interdisciplinary aspects of reading instruction.* Western College Reading Association 4th Proceedings. Los Angeles: the Association, 1971. Pp. 147-155.

Wolfe, J. B. Preparation for specialists in teaching college reading. In C. A. Ketcham (Ed.), *Proceedings of the College Reading Association* 3rd Volume. Easton, Pa.: the Association 1966. Pp. 25-28.

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METHODS OF EVALUATING READING PROGRAMS FOR MARGINAL ADMISSION STUDENTS

The paper might be better titled, "How to get more mileage from your data." Hopefully, it will raise more questions than it will answer. When reading programs are being modified or their success is being tested, it is important to rely on empirical data. While this is true for all programs, it is especially true for marginal admission student programs. The purpose of this paper is to demonstrate how the more efficient use of available data may augment the extent to which reading programs account for the variance in student achievement.

The students in the present sample are from Project 250 at Wayne State University. They are marginal admission students in that their high school records and Scholastic Aptitude Test scores do not reflect a good prognosis for college success. They had high school averages ranging from 2.4 to 2.74 which is below the regular criterion for admission. They are economically disadvantaged, 91% of them are Black and they were recruited from core-city areas of Detroit.

The importance of methodical study of reading programs for these students lies in the realm of both financial and psychological expense. Large sums of institutional and federal funds are supporting these programs. With the increasing importance of accountability in education, developmental and remedial reading instructors must ask if funds for their programs are being spent intelligently. Other issues to which instructors must eventually direct their attention include whether these students could do just as well without participation in a reading and study skills program. Would the money be better spent if it were given to better qualified core-city students? With a view to the future, could these students be more economically productive if they began a career immediately after high school instead of going to college?

More important than the economic issues are the psychological ones. To what extend do we induce frustration in a student when we admit him to a college and do not provide the necessary remediation programs to help insure his success? Perhaps our services are merely a continuation of those from the elementary and secondary schools which led to early poor achievement (cf., Pepper & Drexler, 1971).

For these reasons it is important to evaluate program effectiveness. While these writers are not presently prepared to assess the total effectiveness of their own or any other reading program for marginal admission students, they are suggesting directions that the evaluation of these programs may take.

Moore (1970) noted that very little substantive or systematic research has been done on ameliorative programs for marginal admission students. Too frequently, programs are evaluated on an intuitive basis. The feeling is that if some process is innovative, it will be successful. Campbell (1969) has suggested that resistance to program evaluation may be due to a defensive attitude on the part of program administrators. Once money and people have been committed to a particular reform, an administrator cannot tolerate the idea of that reform's failure. He further suggested that instead of advocating a particular reform process, it would be better to advocate persistence in seeking alternative reforms should the first fail. If this became the prevailing attitude, an administrator would not need to feel that his position is jeopardized when a particular program fails.

It has been established that methodical research on programs for marginal admission students is necessary. In conducting this research a number of problems arise with respect to criteria, experimental design and data interpretation.

CRITERIA

In a program whose objective is to improve reading performance, the immediate criterion of success is found in some comparison of pre and post treatment measures of reading performance. When, however, a reading program is associated with a larger program of remediation, the ultimate criterion for the specific program must be the criterion for the overall program. With respect to marginal admission students, that criterion is achievement in or success at college.

The general criterion for success is honor point average (HPA). The use of HPA generates many questions about whether a veridical relationship exists between HPA and achievement. Nonetheless, the institution defines it as a measure of success and uses it to justify program expenditures. Other measures may be attrition rate, persistence through graduation, or the work in which a student engages after graduation.

EXPERIMENTAL DESIGN

A true experiment is one with complete randomization and a control or non-treatment group. It is improbable or impossible that ameliorative programs for marginal admission students can meet these criteria. Students self-select the hours and days during which they will participate in a group or individualized reading course. The reading course must dovetail the other courses they take. At best, if the efficacy of one instructional method is being compared to another, instructors can be randomly assigned to use one method with a particular section of students.

Selection of individuals to an overall program for marginal admission students also elicits bias. Admission counselors do not randomly choose students to participate from a potential group of individuals. For example, students may be chosen on the basis of some apparent or self-reported motivation. Comparisons to students not admitted would be invalid.

A control group is an experimental group which receives no treatment. Generally, however, when a reform is initiated, all individuals in the appropriate unit of concern are affected (Campbell, 1969). Remedial program administrators sell their programs to the dispensers of money by insisting that their projects will be effective. Funders would react unfavorably to random selection of students who would receive no remedial help in order to use them as a control group. Marginal admission students have scores on traditional predictors which say they won't succeed. Justification for admitting them lies in the assumption that remediation instructors hold that they can do something to enhance the likelihood of a student's success.

Beyond the issue of choosing one group of students to receive a placebo is an issue concerning the treatment group. Kelman (1968) raises a number of cogent questions relating to the ethics of experimental manipulation of human behavior. Social scientists are faced with a dilemma: should they never intervene in society or should they impose the implications from empirical data on society. In effect, should they impose their values on the society at large?

It is unlikely that true experiments could be run to test program effectiveness for these students. Quasi-experimental designs are designs which do not meet the criteria for a true experiment, where random assignment to groups is not possible, yet they do maintain some degree of experimental control over threats to internal validity. Campbell and Stanley (1966) have discussed a number of these. Two of them are appropriate for research on programs for marginal admission students.

One is the interrupted time -series design. This design entails the use of scores on some criterion over a period of time. A number of competing hypotheses could explain the effect of a new treatment during a given year when it is compared to the effect of a treatment given during the previous year. Changes in the effect could be due to maturation, a change accounted for by the mere passage of time. Instability is another factor which could account for any effect. If annual criterion scores are relatively unstable, i.e., they vary widely without any specific intervention, any change may be due to nothing more than this unstable situation. A third factor is regression. Students are chosen on the basis of some extreme predictor score or innovations are made because one group of students is doing poorly. There is a trend for succeeding scores or groups to be closer to the average scores or groups.

To remedy these problems, it has been suggested that evaluators look at scores over a period of time. The appropriate question is whether there is any significant upward or downward trend in scores relative to the previous pattern of scores. One receives a completely different picture of a pattern of scores in looking at Figure Ia from the picture presented in Figure Ib. Figure Ia would leave a program evaluator with the impression that his new treatment is indeed helping students achieve higher honor point averages. A look at the extended time series (Figure Ib), however, indicates that criterion scores after the new intervention merely reflect a continuation of a highly unstable situation.

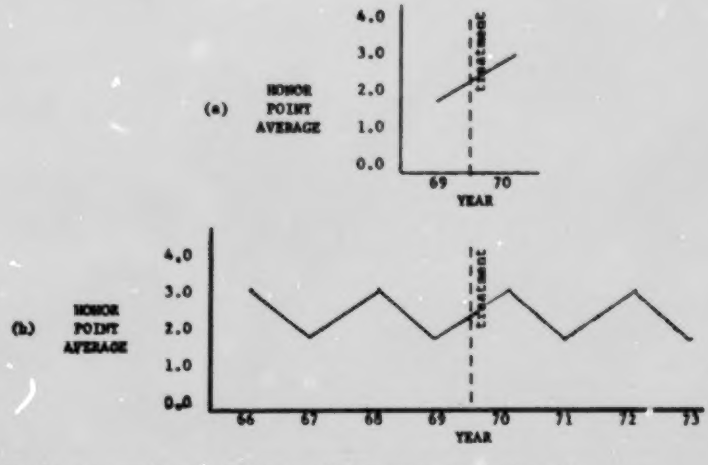

Fig. 1. An example of the effects of a treatment on the honor point averages of students over a two year period (a) as opposed to the effects of a treatment on the HPA of students over an extended period of time (b).

The other quasi-experimental design appropriate here is the regression discontinuity design. In this design, one sets up a regression line of predictors on the criterion, extending it to the cutoff point which discriminates between two groups of individuals. In the present situation, this would be the cutoff point which determines wheter one is admissible to an institution through regular admission policies. One then compares the scores of the regression for the specially treated group to the regular group at the cutoff point. If there are significant differences between scores for the groups at this intercept, one can say that there is a treatment effect. Figure 2 illustrates this.

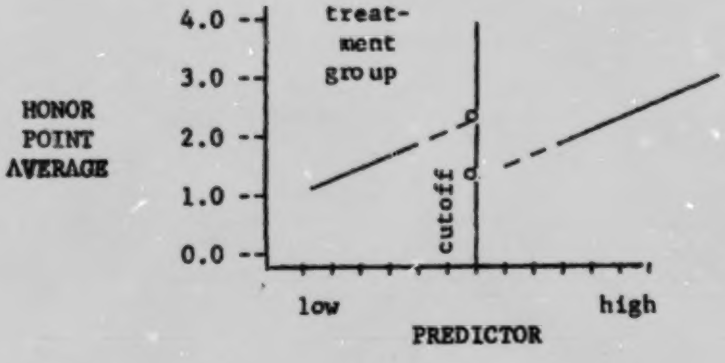

Fig. 2. An example of a regression discontinuity design.

DATA INTERPRETATION

The most valuable research is that in which hypotheses are based on sound theoretical foundations. These writers are not suggesting that this belief be abandoned. Throwing all data into the computer to see what happens does not have the power of theoretical prediction. Nevertheless, efficient use of computer technology may aid in the interpretation of results whether they are in the predicted direction or not.

When data support some hypothesis, the results can be accounted for by the fact that the study has internal validity (i.e., what is said to be happening is actually happening) or by some threat to internal validity. In the latter case some plausible competing hypothesis may account for the results. When data are discordant with the prediction one cannot immediately conclude that the theoretical network is erroheous (cf. Crowbach & Meehl, 1967). Again, some experimental artifact could account for the lack of results. Perhaps the experiment does not adequately test the hypothesis or problems of internal validity run interference with the experimental design (see Boring, 1969 or Campbell, 1969). Because of the importance of research on marginal admission students, impulsive implementation of programs or rejection of particular programs due to spurious research could be disastrous. Other studies need to be run to reduce the number of competing hypotheses by converging on the appropriate theory (cf. Platt, 1964). This can also be accomplished by using correlational techniques or unobtrusive measures to help explain the variance in the dependent measure. The remainder of this paper illustrates how this can be done.

Statistical packages available on institutional computers can aid in making decisions about applying empirical finding. In a pre-computer era, it was too tedious a task to run more statistics than were necessary to describe experimental results. With the computer, more sophisticated statistical techniques can be easily used to help explain results. A number of alternate dependent measures can also be added to certify the results.

Loevinger (1967) pointed out that when something is known about the validity of a number of measures, these measures can be used to indirectly explain problems of concern. One way to do this is through the use of suppressant variables (See McNemos, 1962). A suppressant variable is one which has no or little relationship with a criterion but is related to some other variable which is related to the criterion. In effect, the suppressant masks the relationship between one predictor and the criterion. By partialling from the predictor the variance due to the suppressant, one can increase the proportion of the variance which can be accounted for in the relationship between predictor and criterion.

Another problem which investigators should watch for is that of moderator variables. Saunders (1967) described cases in which the predictability of some criterion varies systematically with some third variable which is independent of the predictor. For example, Scholastic Aptitude Test scores may predict HPA better for students with high motivation than students with low motivation. In this case, motivation would be a moderator variable. Program investigators should work to determine whether some attitudinal or motivational factor does in fact moderate the extent to which they can account for variance in achievement. Overlooking the possibility of the effects of suppressants and moderator variables in research on marginal admission students could have costly results.

Another way to explain the statistical results from an empirical study is through the use of less obtrusive measures. Unobtrusive measures are frequently associated with nonreactive measures (1969). However, in evaluating programs for marginal admission students, these writers are using the term to refer to dependent variables other than traditional measures. These data can be helpful in converging on the appropriate explanation for some of the statistical results.

For example, while HPA is the most commonly used criterion of success, it can often be misleading. Two individuals having the same HPA's may have achieved them in two different ways. With respect to amount of work done, one student may have only taken one course per term whereas another may have taken four courses per term. Another difference may be attributed to the type of courses students take. One may have an HPA based on non-academic courses such as physical education or home economics. Because HPA can often be misleading, one should also use less obtrusive measures to explain relationships or lack of relationships between the predictor and criterion.

Honor Point Base (HPB) is one of these less obtrusive measures. It is the number of hours a student has attempted to earn, or the number of hours entered into HPA. Another is Cumulative Credit Hours (CCH). These are the hours earned toward a degree. CCH may differ from HPB in two respects. One, CCH may be greater than HPB when a student takes a course on a pass fail basis. In this case credits are accumulated toward the degree but grades are not entered into HPA. Another difference is when CCH is less than HPB. In this case failing grades are entered into HPA but do not count toward degree requirements.

Data from Project 250 students at Wayne State University can illustrate this. At the end of the Spring Quarter, 1971, the students who were admitted during the Summer of 1970, had a mean HPA of 2.005 with a standard deviation of 0.483. The range was from 0.778 to 4.000. The students had a mean HPB of 34.67. The standard deviation was 9.472 and HPB's ranged from 4 to 50. The data for CCH were 34.98, 10.655 and 6 to 54 respectively. The variation within each of these variables was large. Table 1 shows that they were somewhat independent of each other. They did have some common variance but it was not as much as one would expect. HPA and HPB only had 3 percent common variance and HPA and CCH had 18 percent. Because of this, they are important dependent measures to observe when dealing with these students.

Table 1

The intercorrelations among HPA, HPB and CCH

N=201

	HPB	CCH
HPA	.19*	.42**
HPB		.91**

*p<.01
**p<.001

Another measure is persistence to stay in college. At Wayne State University, marginal admission students are guaranteed that they would not be dismissed for academic reasons for at least one full year of study. Thus, any student who dropped from the university did so of his or her own choosing.

In one experiment, these writers (1971) tested the effects of a personality variable, locus of control, on achievement. It was predicted that a strong relationship between these two variables would be found. The two variables were found to be unrelated. Students were then divided by means of a median split along the distribution of locus of control scores. Attrition rates for one group of students was significantly higher than for the other group. By looking at this persistence measure, these writers found that they were dealing with a select subsample of one experimental group. By merely looking at the results of the study with respect to the prediction, they might have dismissed a variable with potential importance to these students.

The number on non-academic credit hours is another less obtrusive measure which can be used. The decision as to which courses should be labeled non-academic is difficult and some might consider it arbitrary. In these writers' research, non-academic courses were defined as those which are considered to be more of a craft than an academic discipline. Courses offered by the following departments were included in this group: Music, Art, Hygiene, Physical Education and Home Economics. Care was taken to discriminate between theoretical and how-to-do-it courses offered in these disciplines. The measure was the total number of credits earned by a student in how-to-do-it courses in these departments.

Again, relating locus of control to achievement, it was found that students who felt control over the outcomes of their efforts, internal locus of control, took a larger number of non-academic credit hours ($X=2.52$) than students who felt little control over the outcomes of their efforts, external locus of control ($X = 0.71$). The differences between these means were significant ($t = 2.32$; $N = 38$; $p < .025$). By taking non-academic courses, internals demonstrated their ability to help insure success. In doing this, a student could allow himself to spend more time studying for academic courses or help buffer the effect of failing grades from academic courses.

SUMMARY

This paper has discussed the importance of evaluating programs for marginal admission students. Methodological problems were raised and some possible solutions to the problems were suggested. These solutions were in the areas of experimental design, the use of less obtrusive measures, and data interpretation. It is the position of these writers that a greater understanding of the nature of the variance in achievement among marginal admission students is essential for effective program evaluation.

REFERENCES

Boring, E. G. Perspective: artifact and control. In R. Rosenthal & R. T. Rosnow (Eds.), *Artifact in Behavioral Research*. New York: Academic Press, 1969. Pp. 1-12.

Campbell, D. T. Prospective: artifact and control. In R. Rosenthal & R. T. Rosnow (Eds.), *Artifact in Behavioral Research*. New York: Academic Press, 1969. Pp. 351-382. (a)

Campbell, D. T. Reforms as experiments. *American Psychologist*, 1969, *24*, 409-429. (b)

Campbell, D. T., & Stanley, J. C. *Experimental and quasi-experimental designs for research*. Chicago: Rand-McNally, 1966.

Cronbach, L. J., & Meehl, P. E. Construct validity in psychological tests. In D. N. Jackson & S. Messick (Eds.), *Problems in Human Assessment*. New York: McGraw-Hill, 1967. Pp. 57-77.

Kelman, H. C. *A Time to Speak: On Human Values and Social Research*. San Francisco: Jossey-Bass, 1968.

Loevinger, J. Objective tests as instruments of psychological theory. In D. N. Jackson & S. Messick (Eds.), *Problems in Human Assessment*. New York: McGraw-Hill, 1967, Pp. 78-123.

McNemar, Q. *Psychological Statistics*. New York: John Wiley, 1962.

Moore, W. *Against the Odds*. San Francisco: Jossey-Bass, 1970.

Pepper, R. S., & Drexler, J. A. Attitudinal factors among marginal admission students. In D. M. Wark (Ed.) *College and Adult Reading*. North Central Reading Association 6th Yearbook. St. Paul: The Association, 1971. Pp. 62-88.

Pepper, R. S., & Drexler, J. A. The relationships among reading performance, locus of control, and achievement for marginal admission students. In D. M. Wark (Ed.), *College and Adult Reading*. North Central Reading Association 7th Yearbook. St. Paul: the Association, in press.

Platt, J. R. Strong inference. *Science*. Oct. 16, 1964, *146*, 347-353.

Saunders, D. S. Moderator variables in prediction. In D. N. Jackson & S. Messick (Eds.), *Problems in Human Assessment*. New York: McGraw-Hill, 1967. Pp. 362-367.

Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. *Unobtrusive Measures*. Chicago: Rand McNally, 1969.

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INDIVIDUAL, GROUP, AND WORKSHOP APPROACHES TO TEST ANXIETY

Anxiety, the feeling of tension during a period of stress, is known to be debilitating (Kisker, 1964). On a university campus, where competition is keen, it has special relevance and is frequently associated with periods of evaluation. An understanding of the problem and its alleviation is of special concern to students. A review of the literature indicated that research has been conducted within several disciplines and important contributions have been made in the fields of reading, counseling, and abnormal psychology.

When university students experience feelings of anxiety before and during an examination, they report that the physical sensations associated with the emotional strains seem to prevent them from reading questions correctly and interpreting ideas adequately. They have difficulty discriminating between available choices. The testing procedures which frequently determine their course grade and possible continuation in school might not be a true evaluation of their abilities.

REVIEW OF RESEARCH

There is considerable evidence that a strong relationship exists between understanding material being read and the emotional state of the reader. Ruth Strang (1968) said that the more complicated skills such as reading suffer more interference from anxiety than do the simpler tasks. Smith and DeChant (1961), in reviewing the perceptual nature of reading, said "The emotional state of the reader may distort, color, or completely change meaning to such an extent that communication becomes impossible (p. 30)." As reading is a process of thinking, emotions could have detrimental effects on the learning task. Studies by Gifford and Marston (1966) and Cowen, Zax, and Klein (1965) reported negative correlations between high anxiety and reading ability. Indications of tension that were observed in students while they were reading included tautness of posture, random movements, sighing, and deterioration of rapport (Robeck, 1962). As anxiety mounts, they are unable to attend to the learning task. Combs and Snygg (1949) emphasized the effect of emotion on the ability to learn and to discriminate. When combating fear, it is difficult to fix attention on reading, and ideas are likely to be ill-formed or meager.

Closely associated with the relationship between anxiety and reading is the effect of anxiety on the evaluation of college students' abilities. Research during the past fifteen years has given evidence that the heightened emotion is associated with a lowered or inadequate evaluation. Emory and Krumboltz (1967) found that college students experiencing academic difficulties had the ability to do better, but anxiety prevented them from performing well. Studies with similar results have been made by Sarason (1961) and Paul and Ericksen (1964). Speilberger, Weitz & Denny (1962) in their research with middle I.Q. range college students, reported that high-anxiety students performed more poorly than low-anxiety students and their rate of failure was four times greater. The detrimental effect of anxiety on academic performance is continuing to be confirmed.

At the present time, there are several theories for helping students who are anxious. The methods are counseling oriented and involve a voluntary commitment by the student to try and change his behavior during examination time. Both psychodynamic counseling and behavior modification techniques have been used to try and overcome the student's stress and tension associated with taking tests. Studies have been made with individuals and with groups.

Approaching the problem through insight involves a perceptually-oriented relationship during which the counselor explores, interprets, and reflects. Behavior is viewed as a function of perception, and goals include helping the person develop better self-understanding. It is based on the premise that a person can free himself from a problem and change behavior if he has subjective awareness (Truax & Carkhuff, 1967). To help the student experience a freedom from limitations he has imposed on himself, present and historical circumstances leading to feelings of anxiety are explored and clarified. A supportive and reassuring climate that encourages belief in self is maintained. It is a method of helping the student know his assets and liabilities and operate with reference to them consistently. Successful results with college students have been reported by Spielberger, Weitz, and Denny (1962) and Horne (1971).

Behavior modification, based on learning theory, has been a way of changing the maladaptive behavior associated with tests. The hypothesis is that human beings are affected by the reinforcers they receive. The appropriateness and timing of reinforcement is used to produce the kind of behavior desired (Krumboltz, 1966). Two conditioning techniques that have been employed are systematic desensitization and reactive inhibition. Both methods involve the student in structuring a hierarchy of felt anxiety situations starting from mild discomfort on to the test panic state.

Systematic desensitization attempts to weaken the anxiety response by associating it with a response antagonistic to it. Relaxation is considered to be incompatable with anxiety (Lazarus, 1961; Wdpe, 1958). The assumption is that anxiety responses will be weakened by substituting other behavior patterns. Deep muscle relaxation is taught to students during the desensitization process. While relaxed, the student is asked to imagine anxiety states starting from the base of the structured hierarchy. Successful reduction in anxiety related to tests and school oriented stress have been reported by Emery and Krumboltz (1967), Paul (1966), Paul and Shannon (1966), and Johnson and Secrest (1968).

A second method of focusing on extinguishing anxiety through changed behavior is by reactive inhibition. The anxiety producing stimulus is presented repeatedly without reinforcement. If the person has learned to avoid unpleasant sensations, the hypothesis is that there will be a lessening of the undesirable response because of the effortful activity (Guthrie, 1923). The student is asked to work actively on maintaining an anxiety response during counseling sessions. Items from the structured hierarchy are presented including actual test situations where he can imagine consequences of failure and relive emotions associated with an unhappy test experience. Relief from anxiety using this method has been reported by Calef and MacLean (1970) and Graff, MacLean and Loving (1971).

There have been some comparative research studies using insight, systematic desensitization, and reactive inhibition methodologies but at present there is insufficient evidence that one method is superior to another in reducing test anxiety. Results might be associated with the degree of involvement. There is a gradation of anxiety, and a differentiation might need to be made between specific anxiety related to the testing situation and a more generalized, diffuse anxiety in which the feelings during a test period are only symptoms. Exploration into the reason for anxiety and the dynamics of personality could be determining factors in finding a suitable process for eliminating the stressful feeling.

APPROACHES TO TEST ANXIETY

Individual

During individual counseling, a radical difference in precipitating causes has been found. Strong feelings of inadequacy and self-devaluation are evident if the anxiety is deep-seated. The basic psychological needs associated with self-worth and value are affected and long-term counseling or psychotherapy might be necessary. Further along the continuum and easier to eliminate are feelings associated with a lack of confidence in self that is specific to the university community and choices that were made either directly or indirectly by the student.

Upperclassmen and graduate students have a wide variety of situations causing test anxiety such as family pressures, financial status, interpersonal relationships, and health problems. The investment of time, money and emotional energy has increased the threat of failure and the risk associated with attaining their academic goals. It can be devastating if a person is in a position where there are no alternate plans of action. The risks associated with examinations are increased if the choice is either an adequate test score or failure as a student. He will have a sense of release when there are alternate plans of action and continued freedom of choice. The strength to change behavior will be increased (Wheelis, 1969).

Individual counseling is usually indicated if causal factors are unique or if the student feels the need to work through his problem privately. Change and growth will be dependent on his belief in the counselor's ability to assist him in the process.

Groups

The formation of test anxiety groups has been an effective way of helping undergraduate students having tension specifically associated with the competitive situation on a university campus. Freshmen who have left the safe haven of home and a familiar high school curriculum might experience an anxiety associated with their new self-imposed responsibilities. A lack of awareness of greater academic pressures could have prevented the practicing of good study habits. Risk taking and a threat of failure might need to be resolved before there is a motivation to develop and improve college level study skills.

Through the use of group process, movement toward more successful test behavior can be made. The commitment of group members to help each other overcome anxiety is a powerful force. Awareness of others' feelings of inadequacy and lack of confidence seems to be refreshing and gives support to each member. The dynamics of group interaction is the catalyst for change, but the responsibility is personal (Lubin & Eddy, 1970).

At the University of Florida, an eclectic method has been employed during the past three years. When such groups are formed, there is a structuring of the groups that includes experiences in insight, relaxation, and reactive inhibition. The added ingredient of involvement in evaluating better methods of test preparation makes this approach unique to a reading center setting. The first few sessions are devoted to insight into self and a better understanding of others in the group. Interaction is related to present and past emotions associated with academic success, family expectations, and self-goals. Support and belief in one another is developed during this time. For instance, a girl who had experienced several test failures before joining a group reported that as she walked to take an examination she felt uneasy and tense. Suddenly she thought, "Why, my group believes I can do it. I can't let them down." She went into the test, and - yes - she made an "A".

Conditioning techniques are used during the next two sessions. Vicarious experiences in test taking are given with the associated threats of limited timing, difficult comprehension passages, and ambiguous questions. Then, they analyse their reactions. Could they overcome the initial feeling of panic? What positive forces were present? Following these experiences, they learn how to relax using specific directions. They are encouraged to practice teachniques both in the group and between sessions.

The last several sessions are devoted to an exploration into more effective ways of behaving during a test. Some students expect examinations to be a direct feedback of information rather than inferences that are made because of textbook reading assignments. Activities preceding the evaluation might be analyzed more carefully. The scheduling and organization of time throughout the term could be factors to be considered. They are also given an opportunity to evaluate reviewing techniques and study habits associated with concentration and comprehension. The physical components of good food, regular sleep, and a healthy rhythm of living are stressed as contributing to the intellectual competencies needed during periods of evaluation.

Although six or eight hourly sessions, meeting in the second half of each quarter, are not likely to change students radically, it seems to lessen specific anxiety and to increase motivation toward acquiring the necessary reading and study skills required for success.

Workshop Approach

Prevention of test anxiety is to be preferred and will benefit more students than any other method. In dormitories where emotional responses and disruptive behavior can easily influence others, counselors and resident assistants are the first line of defense. They are in a position to promote healthy attitudes during test periods and can assist students in alleviating the initial signs of panic. A workshop approach can be helpful to the dormitory personnel responsible for the mental and emotional climate of the students. It is a way of helping them develop the skills needed to handle the heightened emotions that are evident during periods of stress.

The University of Florida Reading and Study Skills Center, Counseling Center, and Mental Health Unit of Student Health combined their efforts in 1971 and conducted an all day Test Anxiety Workshop. Participants were personnel having responsibilities for students in the dorms. Its purpose was to involve them in learning good mental attitudes that tend to prevent anxiety and to find ways of handling students experiencing extreme tension.

The Workshop began with an anxiety producing situation. On arrival, the participants were asked to complete a difficult comprehension test on the pretense that it would measure their suitability to help undergraduates. Release was given during the discussion which followed.

They worked through their own immediate reactions and proceeded into a discussion of the anxieties and frustrations of undergraduates in reality test situations. Principles of group dynamics were reviewed in smaller groups for the next session. Later, all participants were given simplified training in relaxation techniques that could be used when appropriate. The final session of the day was an open forum with a panel of faculty members from the three sponsoring agencies. Topics of concern were related to the promotion of healthy attitudes, effective study techniques, and specific test-taking skills.

A follow-up program for counselors interested in conducting test anxiety groups is in progress now. During a series of weekly meetings, counselors are learning either the techniques of systematic desensitization or the eclectic approach.

CONCLUSION

Research has given evidence that symptoms of test anxiety prevent college students from reading discriminatingly and making decisions accurately during an examination. Psychodynamic and behavior modification systems of counseling have been used to help students obtain a more realistic evaluation of academic achievement. Positive results have been reported on specific techniques such as insight, systematic desensitization or reactive inhibition. Comparative studies evaluating their relative effectiveness need to be made.

The University of Florida Reading and Study Skills Center has approached the problem through workshops and in individual and group counseling. The Reading Center has the orientation and personnel to add a very important dimension. Utilizing an eclectic system of counseling, students are involved in a process of changing behavior. When motivation to substitute better behavior patterns is at an optimum level, specific assistance is given. An individualized program for developing better habits of reading and studying is implemented to be continued in the laboratory voluntarily. They are able to progress from having success in overcoming heightened emotion associated with tests into a positive plan of action toward becoming a competent student.

REFERENCES

Calef, R., & MacLean, G. A comparison of reciprocal inhibition and reaction inhibition therapies in the treatment of speech anxiety. *Behavior Therapy*, 1970, *1*, 51-58.

Combs, A., & Snygg, D. *Individual behavior*. (Rev. ed.) New York: Harper & Row, 1949.

Cowen, E., Zax, M., & Klein, R. The relation of anxiety in school children to school record, achievement, and behavioral measures. *Child Development*, 1965, *36*, 385-393.

Emory, J., & Krumboltz, J. Standard versus individualized hierarchies in desensitization to reduce test anxiety. *Journal of Counseling Psychology*, 1967, *14*, 204-209.

Gifford, E., & Marston, A. Test anxiety, reading rate, and test experience. *Journal of Educational Research*, 1966, *59*, 303-306.

Graff, R., MacLean, G., & Loving, A. Group reactive inhibition and reciprocal inhibition therapies with anxious college students. *Journal of Counseling Psychology*, 1971, *18*, 431-436.

Guthrie, E. R. *The psychology of human conflict*. New York: Harper, 1938.

Horne, A. A comparative study of three group counseling techniques for reducing test anxiety. Paper presented at the American Personnel and Guidance Association Convention, Atlantic City, 1971.

Johnson, S., & Secrest, L. Comparison of desensitization and progressive relation in treating test anxiety. *Journal of Consulting Psychology*, 1968, *32*, 280-286.

Kisker, G. *The disorganized personality*. New York: McGraw-Hill, 1964.

Krumboltz, J. (Ed.), *Revolution in counseling*. Boston: Houghton Mifflin, 1966.

Lazarus, A. Group therapy of phobic disorders by systematic desensitization. *Journal of Abnormal and Social Psychology*, 1961, *63*, 504-510.

Lubin, B., & Eddy, W. The laboratory training model: Rationale, method, and some thoughts for the future. *International Journal of Group Psychotherapy*, 1970, *20*, 305-315.

Paul, G. *Insight versus desensitization*. Stanford: Stanford University Press, 1966.

Paul, G., & Ericksen, C. Effects of test anxiety on "real life" examinations. *Journal of Personality*, 1964, *32*, 480-494.

Paul, G., & Shannon, D. Treatment of anxiety through systematic desensitization in therapy groups. *Journal of Abnormal Psychology*, 1966, *71*, 124-135.

Robeck, M. Children who show undue tension when reading: a group diagnosis. In J. A. Figurel (Ed.), *Challenge and experiments in reading*. Newark, Del.: International Reading Association, 1962.

Sarason, I. Test anxiety and the intellectual performance of college students. *Journal of Educational Psychology*, 1961, *52*, 201-206.

Smith, H., & DeChant, E. *Psychology in teaching reading*. Englewood Cliffs: Prentice-Hall, 1961.

Speilberger, C., Weitz, H., & Denny, H. Group counseling and the academic performance of anxious college freshmen. *Journal of Counseling Psychology*, 1962, *9*, 195-204.

Strang, R. *Reading, diagnosis and remediation*. Newark, Del.: International Reading Association, 1968.

Truax, B., & Carkhuff, R. *Toward effective counseling and psychotherapy*. Chicago: Aldine, 1967.

Wheelis, A. How people change. *Commentary*, 1969, *47*(5), 56-66.

Wolpe, J. *Psychotherapy by reciprocal inhibition*. Stanford: Stanford University Press, 1958.

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MEASURING OUTCOMES IN COLLEGE READING PROGRAMS

A variety of criteria have been used in measuring the outcomes of college reading programs. Most frequently, crude gain, or simple difference betwee a pre- and posttest, has been used as an indication of change even though this procedure has been criticized by Davis (1961), Spache (1959), and Rankin and Tracy (1965). Figure 1, adapted from Thorndike and Hagen (1964), illustrates the low reliability of crude gain and helps in understanding the concern over its use. Note that subtracting a posttest score from an initial test score leaves only factors specific to either test and the error factors of each test. Since the common factors go out with the subtraction, the error factors become much larger in relation to the specific factors. Thus, it can be seen that the reliability of a difference score decreases as the size of the common factor component increases.

Diederich (1956) Manning and DuBois (1958), and Lord (1956, 1963) have suggested statistical procedures which adjust for the difficulties involved in the use of crude gain. Davis (1961), Spache (1963), and especially Rankin and Tracy (1965) have advocated the use of these techniques in reading studies. However, evaluation of these procedures and their use in all research has been limited. Rankin and Tracy (1963), Rankin and Dale (1969), and Taschow (1969) have used residual gain in adjusting changes measured by reading tests. Dahlke (1968) employed Lord's true gain technique in correlating WISC subtest scores with reading gain. Manning and DuBois (1958) compared their method of residual gain with crude gain and concluded that the results, when residual gain was used, were more predictable and logical in outcomes. Rainwater (1969) also favored residual gain after a comparison with crude gain. Ohnmacht (1969) studied change in academic achievement and anxiety as measured by standardized tests and concluded that "...regressed estimates of true change circumvents some of the problems associated with crude gain estimates... (p. 44)." Tillman's dissertation study (1970) of change in reading test scores after remedial tutoring suggested that Lord's formula led to more logical outcomes than the use of crude gain.

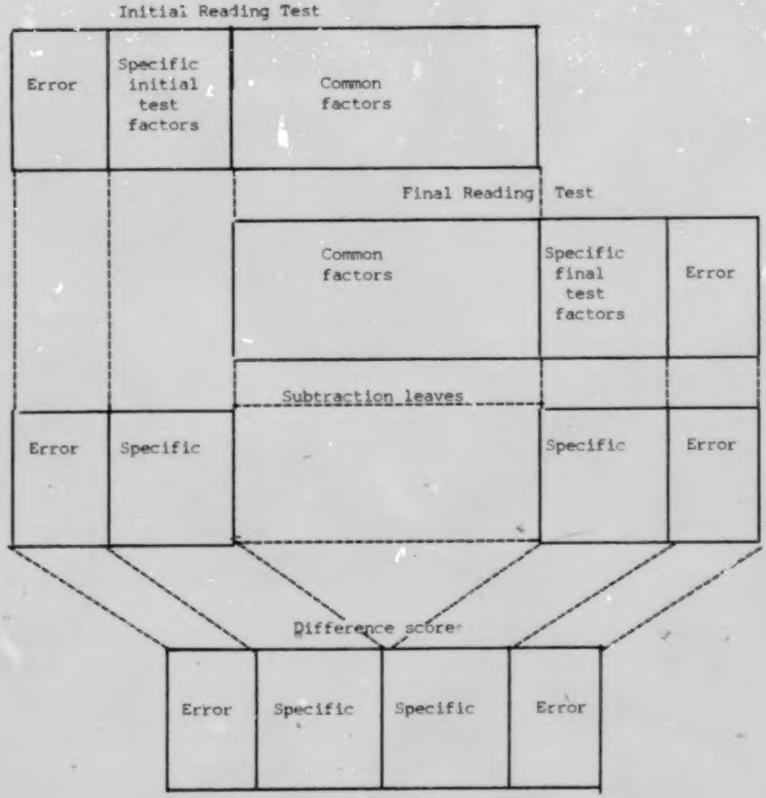
Initial Reading Test
Error
Specific initial test factors
Common factors
Final Reading Test
Common factors
Specific final test factors
Error
Subtraction leaves
Error
Specific
Specific
Error
Difference score
Error
Specific
Specific
Error

Fig. 1. Nature of a difference score (after Thorndike & Hagen, 1964).

However, Neel (1970) generated samples of test scores by Monte Carlo techniques and by using these artificial scores compared crude gain, Lord's true gain, residual gain, and analysis of covariance as change measures. He found that Lord's formula produced "... a number of spuriously significant t values, greater than would be expected by chance, when there was no real difference in amount of gain between the two populations sampled. No apparent differences were noted among the remaining three methods and these three methods did not appear to have inflated significance levels (p. 33)." He concluded that Lord's procedure could not be recommended. Residual gain and analysis of covariance were more similar to each other than either was to crude gain, but differences were not significant, and it was pointed out that none of the three methods could be recommended over the others. Crude gain might be different from residual gain and analysis of covariance only in more complicated statistical applications. If only simple means are involved, crude gain might be an adequate measure.

It was mentioned above that residual gain has been used in analyzing changes measured by standardized tests after reading training. Outcome studies which have additionally included academic performance as a criterion, except for an unpublished paper by Allen and Tillman (1966), apparently have not employed residual gain in analyses. Table I provides a brief review of selected research which has related reading change to academic performance. The numerous studies which used only reading change as a criterion and those which relate reading status to academic performance were excluded. Studies earlier than 1945 were not included but can be found in a brief review by Kilby (1945). For convenience of tabulation, the column headings in Table I were loosely defined and provide only a generalized summary. In a sense, some studies are only partially reviewed since aspects of the studies which did not pertain to reading and academic performance were excluded from the table.

Table 1

A Brief Summary of Selected Research Into the Effects of College Reading Programs Upon Academic Performance

Year & Author	Contol Group	Treatment Approach	Gain Method	Criteria of Academic Performance	Significant Findings
1945					
Kilby	yes	compared group and remedial	crude	GPA	positive for remedial
1951					
McGinnis	yes	group	crude	GPA	positive
1952					
Barbe	yes	small group	crude		positive
Mouly	yes	group	anova		positive
Preston & Botel	yes	?	none	GPA	positive

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Year & Author	Control Group	Treatment Approach	Gain Method	Criteria of Academic Performance	Significant Findings
1955					
Kingston & George	yes	group	none	GPA	positive
Ranson	yes	individual	none	GPA	positive
Smith & Wood	yes	group	crude	GPA	positive
1956					
Blake	yes	combined	crude	GPA, attrition	positive
Willey & Thomson	yes	?	crude	GPA	positive
1957					
MacDonald	yes	group	covariance	GPA, attrition	positive
1959					
*Sternitzke	?	group	crude	GPA	positive
1960					
Mains & Collins	no	group	crude	GPA, attrition	?
1961					
*Gunderson	NA	group	none	GPA	positive
Hinton	yes	group	none	GAP, attrition	positive
1962					
Bloomer	yes	individual	crude	derived GPA gain, probationary status	positive
Feinberg, Long & Rosenheck	yes	group	crude	GPA	positive
Wright	yes	group	crude	GPA	positive
1963					
*Parker	no	group (?)	crude	GPA	negative
1965					
Nikas	yes	group	crude	GPA	negative
1966					
Dalton, Gliessman, Guthrie & Rees	yes	group	crude	GPA	positive
*Freer	yes	group	none	GPA	positive
Hafner	yes	group	crude	GPA	positive
*Regensburg	yes	group	crude	GPA	negative
1967					
*Stebens	yes	group	crude	GPA	negative
1968					
*Allen	?	group	none	graduate status	negative
*Keets	yes	group	crude	GPA	negative
1969					
King, Dellande & Walter	yes	group	crude	GPA	positive
*Phillips	?	group & individual	covariance	GPA	negative
1970					
*Friend	yes	group	covariance	GPA	negative
1971					
Belcher	yes	group	crude	GPA	positive
*Payne	?	group	crude	GPA	positive
Yuthas	yes	combined	crude	GPA, attrition	positive

* doctoral dissertations

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With a few exceptions, most followed a simple two group design using a t test to analyze differences in initial and final reading tests and differences in mean GPA. Except in a few cases where analysis of covariance was used, no attempt was made to adjust for problems associated with the use of crude gain. Total GPA was the most frequently used criterion. In some studies, attrition or college drop-out was also included. A few studies examined grades for specific courses or types of courses. In most studies, small but statistically significant changes in GPA were found to be associated with small but statistically significant improvement in reading skills. Eight of the thirty-three studies were negative in the sense that GPA was not associated with reading improvement. Examination of the items marked (*) indicate trends in the doctoral dissertaion research.

Some recommendations are suggested by the preceding discussion and review:

1. Outcome studies of college reading programs have been remarkably consistent in design and in showing small but significant gains in academic performance. Even though the studies might be improved by more careful attention to design and by using Residual Gain, it seems unlikely that our present methods of treatment will produce highly practical group gains on our present standardized tests or on college grades. Administrators of college programs should periodically conduct such studies, but evaluative research of more varied types might be more productive.
2. Continued effort is needed in studying and developing new measuring instruments. Certain aspects of Raygor's newly developed tests (1970) seem especially relevant to college reading requirements and might be especially productive in research. Another promising tool for research might be an informal inventory technique such as that suggested by Taschow (1971). Results of informal inventory research might tend to be more limited in application but could be helpful administratively.
3. Perhaps it is erroneous to condlude that outcomes of college reading programs must be revealed in improved GPA. In an early presentation at this conference, Spache (1959) suggested that the real objective of college reading programs should be academic adjustment which might not be readily measured by a single reading test score or even by academic performance. The current trend in the outcome research toward broadened emphasis and attention to factors such as self-concept and attitude change should probably be amplified. Such emphasis is especially important since it helps keep GPA in perspective as one of the criteria of change after reading training.

REFERENCES

Allen, E., & Tillman, C. E. Evaluating a college reading program: multiple aspects of academic performance and residual gain. Unpublished manuscript. Gainsville: University of South Florida, 1966.

Allen, P. M. An analysis of selected characteristics of three groups of enrolees in a university non-credit reading and study course. (Doctoral dissertation. University of Cinncinnati)

Dissertation Abstracts, April 1969, *29*, 3313A. Ann Arbor: University Microfilms, Order 69-6326.

Barbe, W. B. The effectiveness of work in remedial reading at the college level. *Journal of Educational Psychology*, 1952, *43*, 229-237.

Belcher, M. J. The effect of increased reading efficiency upon semester grade point averages. *Journal of Reading*, 1971, *14*, 381-384, 442.

Blake, W. S., Jr. Do probationary college freshmen benefit from compulsory study skills and reading training. *Journal of Experimental Education*, 1956, *25*, 91-93.

Bloomer, R. H. The effects of a college reading program on a random sample of education freshmen. *Journal of Developmental Reading*, 1962, *4*, 110-118.

Dahlke, A. B. The use of the WISC to predict reading improvement after remedial tutoring. (Doctoral dissertation, University of Florida) Dissertation Abstracts, July 1969, *29*, 165A. Ann Arbor: University Microfilms, Order No. 69-10-984.

Dalton, P., Gliessman, D., Guthrie, H., & Rees, G. The effect of reading improvement on academic achievement. *Journal of Reading*, 1966, *9*, 242-252.

Davis, F. P. The assessment of change. In E. P. Bliesmer & A. J. Kingston (Eds.), *Phases of College and Other Adult Reading Programs*. National Reading Conference 10th Yearbook. Milwaukee: the Conference, 1961. Pp. 86-99.

Diederich, P. B. Pitfalls in the measurement of gains in achievement. *School Review*, 1956, *64*, 59-63.

Feinberg, M., Long, L., & Rosenheck, V. Results of a mandatory study course for entering freshmen. *Journal of Developmental Reading*, 1962, *5*, 95-100.

Freer, I. J. A study of the effects of a college reading program upon grade-point average in Odessa College, Odessa, Texas. (Doctoral dissertation, Michigan State Univ.) Ann Arbor: University Microfilms, 1966, No. 66-6124 Dissertation Abstracts, Sept. 1966, *27*,601A.

Friend, G. B. The relationship of reading performance to academic achievement of a selected group of Northeastern State College freshmen. (Doctoral dissertation, The University of Tulsa) Ann Arbor: University Microfilms, 1970. No. 70-6671. Dissertation Abstracts Apr. 1970, *30*,4180A.

Gunderson, D. V. The influence of college reading instruction upon academic achievement. (Doctoral dissertation, University of Minnesota) Ann Arbor: University Microfilms, 1960. No. 60-5619. Dissertation Abstracts, Jan. 1961, *21*, 1806.

Hafner, L. E. Improving grade point averages through reading study skills instruction. In G. B. Schick & M. M. May (Eds.), *New Frontiers in College Adult Reading*. National Reading Conference 15th Yearbook. Milwaukee: the Conference, 1966. Pp. 46-57.

Hinton, E. A. Drop-out rate and academic progress of two groups of students enrolled at the University of Wichita. *Journal of Developmental Reading*, 1961, *4*, 272-275.

Keetz, M. A. An experimental investigation of the effectiveness of a college reading and study skills course for freshmen students enrolled in scientific courses of study. (Doctoral dissertation, University of Pennsylvania) Dissertation Abstracts, Jan. 1969, *29*,2121A. Ann Arbor: University Microfilms, Order No. 69-127.

Kilby, R. W. The relation of a remedial reading program to scholastic success in colleges. *Journal of Educational Psychology*, 1945, *36*, 513-514.

King, P. T., Dellande, W. D., & Walter, T. L. The prediction of change in grade point average from initial reading rates. *Journal of Reading*, 1969, *13*, 215-218, 245-246.

Kingston, A. J., & George, C. E. The effectiveness of reading training at the college level. *Journal of Educational Research*, 1955, *48*, 467-471.

Lord, F. M. The measurement of growth. *Educational and Psychological Measurement*, 1956, *14*, 421-437.

Lord, F. M. Elementary models for measuring change. In C. Harris (Ed.), *Problems in Measuring Change*. Madison: University of Wisconsin Press, 1963.

MacDonald, A. S. A college reading program and academic performance. In O. S. Causy (Ed.), *Techniques and Procedures in College and Adult Reading Programs*. Fort Worth: Texas Christian University Press, 1957.

Mains, M. F., & Collins, C. C. The developmental reading course and junior college objectives. *Junior College Journal*, 1960, *31*, 123-129.

Manning, W. H., & DuBois, P. H. Gain in proficiency as a criterion in test validation. *Journal of Applied Psychology*, 1958, *42*, 191-194.

McGinnis, D. J. Corrective readings: A means of increasing scholastic attainments at the college level. *Journal of Educational Psychology*, 1951, *42*, 166-173.

Mouly, G. J. A study of the effects of a remedial reading program on academic grades at the college level. *Journal of Educational Psychology*, 1952, *43*, 459-466.

Neel, J. H. A comparative analysis of some measures of change. (Doctoral dissertation, University of Florida) Dissertation Abstracts, July 1971, *32*, 309A. Ann Arbor: University Microfilms, Order No. 71-17,198.

Nikas, G. B. A study of teacher oriented versus machine oriented developmental reading classes at the college level. *Journal of Reading*, 1965, *8*, 214-216.

Ohnmacht, F. W. Correlates of change in academic achievement. *Journal of Educational Measurement*, 1968, *5*, 41-44.

Parker, W. R., Jr. An evaluation of the effectiveness of a college-level reading program. (Doctoral dissertation, Univ. of No. Carolina at Chapel Hill.) Dissertation Abstracts, Feb. 1964, *24*, 3207. Ann Arbor: University Microfilms, Order No. 64-1881.

Payne, D. B. The effect of participation in a college reading improvement program on retention of reading skills and academic achievements. (Doctoral dissertation, Northwestern State University of Louisiana) Dissertation Abstracts, June 1971, *31*,6286A. Ann Arbor: University Microfilms, Order No. 71-16,257.

Phillips, G. O., Sr. The relative effectiveness of three instructional approaches upon the reading, study habits and attitudes, and academic performance of disadvantaged black college freshmen. (Doctoral dissertation, University of Pennsylvania) Dissertation Abstracts, Sept. 1970, *31*,1084A. Ann Arbor: University Microfilms, Order No. 79-15,460.

Preston, R. C., & Botel, M. The relation of reading skill and other factors to the academic achievement of 2,048 college students. *Journal of Experimental Education*, 1952, *20*, 363-371.

Rainwater, J. A. A comparison of two different formulas for measuring gains in reading proficiency. (Doctoral dissertation, University of Oklahoma) Dissertation Abstrations, Feb. 1970, *30*,3333A. Ann Arbor: University Microfilms, Order No. 70-2334.

Rankin, E. A., & Dale, L. H. Cloze residual gain—A technique for measuring learning through reading. In G. B. Schick & M. M. May (Eds.), *The Psychology of Reading Behavior*. National Reading Conference 18th Yearbook. Milwaukee: the Conference, 1969. Pp. 17-26.

Rankin, E. A., & Tracy, R. J., Jr. Residual gain as a measure of individual differences in reading improvement. *Journal of Reading*, 1965, *8*, 224-232.

Ranson, M. K. An evaluation of certain aspects of the Reading and Study Program at the University of Missouri. *Journal of Educational Research*, 1955, *48*, 443-454.

Raygor, A. L. Reading test. New York: McGraw-Hill, 1970.

Regensburg, G. E. Relationship between participation in a reading improvement course and grade-point averages of college freshmen. (Doctoral dissertation, Rutgers University) Ann Arbor: University Microfilms, Order No. 66-12078. Dissertation Abstracts, Dec. 1966, *27*, 1559A.

Smith, D. E. P., & Wood, R. C. Reading improvement and college grades: a follow-up. *Journal of Educational Psychology*, 1955, *46*, 151-159.

Spache, G. D. Reading improvement as a counseling procedure. In O. S. Causey & W. Eller (Eds.), *Starting and Improving College Reading Programs*. National Reading Conference, 8th Yearbook. Fort Worth: the Conference, 1959. Pp. 125-130.

Spache, G. D. *Toward better reading*. Champaign, Ill.: Garrard, 1963.

Stebens, L. D. A study of the relationship between reading skills and academic achievement in specific subject-matter areas. (Doctoral dissertation, Oklahoma State University, 1967.) Dissertation Abstracts, June 1967, *28*,4881A. Ann Arbor: University Microfilms Order No. 68-8503.

Sternitzke, V. L. An evaluation of the reading and study methods program of the University of Kansas for the years 1953 to 1956. (Doctoral dissertation, Univ. of Kansas) Dissertation Abstracts, May 1959, *19*,2856-2857. Ann Arbor: University Microfilms, Order No. 58-3576.

Taschow, H. G. A comparison of individual reading improvement scores on a group of community college freshmen as measured by the crude gain method and the residual gain method. In G. B. Schick & M. M. May (Eds.) *The Psychology of Reading Behavior*. National Reading Conference 18th Yearbook. Milwaukee: the Conference, 1969. Pp. 27-37.

Taschow, H. G. The multiple group informal silent reading inventory. In F. P. Greene (Ed.), *Reading: The Right to Participate.* Milwaukee: National Reading Conference, 1971. Pp. 266-271.

Thorndike, R. L., & Hagen, E. *Measurement and evaluation in psychology and education.* (2nd ed.) New York: Wiley, 1964.

Tillman, C. E. Crude gain vs. true gain: Correlates of gain in reading after remedial tutoring. (Doctoral Dissertation, University of Florida) Dissertation Abstracts, Sept. 1970, *30*,1105A. Ann Arbor: University Microfilms, Order No. 70-14,923.

Willey, D. S., & Thomson, C. W. Effective reading and grade-point improvement with college freshmen. *School and Society,* April 1956, *88*, 134-135.

Wright, E. S. The effect of reading training on college achievement. In A. L. Raygor (Ed.), *College and Adult Reading.* North Central Reading Association 1st Yearbook. Minneapolis: the Association, 1962. Pp. 37-50.

Yuthas, L. J. Student tutors in a college remedial program. *Journal of Reading,* 1971, *14*, 231-234, 271.

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A LONGITUDINAL EVALUATION OF THE VARIABLES IN A READING AND STUDY SKILLS PROGRAM IN THE COMMUNITY COLLEGE

Over the past decade an increasing amount of publicity has been given to reading programs in the community colleges, however, very limited valid research has been conducted to evaluate the results of such programs. Rankin (1962) and Berger (1966) found problems in measuring devices, procedures, differences in difficulty and familiarity of material as well as the intelligence of the students, and raised serious questions about the usefulness of the results of most reported studies..

The purpose of this study is to evaluate the effectiveness of nine methods of applying time pressure as part of the instructional process in a reading program during seven test periods. This study compares nine experimental and one control group to determine the overall effectiveness, rate of improvement, and retention of reading results.

RECENT LONGITUDINAL READING STUDIES

Braam and Berger (1968) gave 179 college freshmen reading instruction using either a tachistoscope, controlled reader, controlled pacing or paperback scanning. All produced gains in rate, with paperback scanning the best. Comprehension level remained stable for all methods. A follow-up study eight weeks later showed that all gains in rate were retained. Ray (1964) reviewed 15 studies of reading rate retention and found that five declined, seven retained the gains, and three improved beyond the end of class. Nikas (1965) compared machine oriented reading improvement courses with non-machine oriented courses and found after one semester of instruction there were no significant differences between machine oriented group and teacher oriented group results. Cosper (1965) found 60 % of the reading speed gains were retained over fourteen months. Staton (1950) retested 12 Air Force officers four to twelve months after they had received the standard intensive course. He found initial improvement in rate and comprehension. A small drop in rate (not back to precourse level) was found later. Repetition of the course resulted in a reading rate higher than that achieved at the end of the original course.

The research literature indicates results similar to those found by Courtney (1966) and Traxler (1960). Significant gains were achieved in reading rate and GPA while comprehension remained about the same during the course, regardless of machine or teacher oriented methods of teaching. Some studies found a tendency for students to regress somewhat after the end of the course, and others showed continued improvement or no loss.

Procedure

A total of 235 Dodge City Community College freshmen were assigned in an essentially random manner to nine experimental groups over a two-year period. The experimental groups were composed of 25 to 29 subjects and the control group contained 40 additional students. The second year follow-up test was based on 196 of the original 235 experimental subjects.

Group one used the EDL Tachistoscope, a filmstrip projector that give a projected image at variable speeds. Group two used the SRA Pacer, a moving shutter that ravels at a constant speed down the printed page. Group three used the PsychotechnicsTachomatic Projector, a variable speed film projector which can show reading films at any desired rate similar to the Harvard and Iowa State University reading film series. A fourth group used the EDL Junior Controlled Reader (Control-Reader) a variable speed film projector which can show films at any desired rate from 120 to 900 wpm. Groups five used the EDL Skimmer-Scanner, a timing device that consists of a moving bead of light that travels down the center of the page and a dial that records 30 seconds for completion of various skimming and scanning tasks

Group six, called Teacher-Timed, was given time signals by the instructor in a group procedure. Group seven, called Time-No-Time, was given time signals by the instructor part of the time but was told to read without time signals the rest of the time. Group eight, called Self- Timed, received no external time pressure but was required to time themselves. Group nine was forbidden to use any timing device and was called the Not-Timed group. Group ten was the Control group which received no reading instruction but completed the pretest and three semesters later took the posttest.

The nine experimental group treatments varied in the procedure of applying time pressure but were held constant in the following four ways: all groups used the same reading workbook, *Increased Reading Efficiency* (Miller, 1964); one instructor gave the same lectures to each group; the same charts and self-recording of results were used to report progress in each group; each group was instructed to preview under time pressure before reading the material.

No significant differences between the ten subgroups were found on the eleven pretests: the five American College Test (ACT) scores, the five reading pretests, and the high school GPA. (It was necessary to remove two or three students from each of four groups on a basis of pretest scores and without knowledge of performance to achieve a homogeneous sample.) To correct for nonrandom attrition in the follow-up study all subgroups were again equated on all pretest measures at both one and two semesters after the end of the class. The first seven forms of the Diagnostic Reading Test (1947) were administered in ABCDEFG order at four-week intervals throughout the 16 week course and at the end of the first and second semester after the course.

This study is limited by the unavailability of a diagnostic reading test with a large number of truly parallel forms. Thus the comparisons between groups at each test period using the same form has more validity than the comparisons of performance between test periods using different forms of the test.

The variables used to evaluate the experimental reading procedures were: reading speed, comprehension, index (WPM x % comprehension), vocabulary, vocabulary plus comprehension, rate of improvement and retention of results over time. The analysis of data involved descriptive statistics, paired t-tests, Analysis of Variance, and Multiple Regression Analysis.

RESULTS

The data in Table 1 and Figure 1 show that the total 235 experimental subjects achieved significant mean score improvement on all five reading test scores at each four-week evaluation period during the class. The reading scores declined significantly at both one and two semesters after the close of the course. However, the first semester vocabulary, comprehension, and vocabulary plus comprehension scores declined less than 2 % of their pretest scores or about one-half of one raw score point. The final mean scores were all significantly better than the pretest scores. The total experimental group achievement at each evaluation period was significantly better than the Control mean pre or post test scores which were 248, 242 WPM, 38.0, 37.5 vocabulary, 26.9, 26.5 comprehension, 64.9, 64.4 vocabulary plus comprehension, 166, 161 index, and 2.42, 2.42 GPA.

The ten groups were not significantly different in WPM on the pretest but were widely dispersed by the 16th week and thereafter. The lowest group was Tachomatic that increased from 250 to 360 WPM or 45 % at the second semester after the course ended. The highest group increased during the same period from 229 to 508 WPM or 122 %. The total experimental mean score increased from 241 to 463 during the course, then decreased to 444 WPM at the second semester testing period. Groups 4 and 5 increased in WPM as well as rank order after the course ended.

Table 1

Total Experimental Mean Scores and Percentage Change For Six Variables Across the Seven Evaluation Periods

	DRT Form						
	A	B	C	D	E	F	G
Variable	Pre-Test N=235	4th Week N=235	8th Week N=235	12th Week N=235	16th Week N=235	1 Sem. Later N=212	2 Sem. Later N=196
Words per Minute	241	288 (20%)[a]	336•• (20%)	404•• (28%)	463•• (25%)	453•• -(4%)	444•• -(4%)
Vocabulary	36.5	39.3•• (8%)	41.1•• (5%)	41.6• (1%)	43.5•• (5%)	42.9• -(1.6%)	41.2•• -(4.7%)
Comprehension	25.7	26.8•• (4%)	27.9•• (4%)	29.1•• (5%)	30.3•• (5%)	29.8• -(1.9%)	28.3•• -(6%)
Vocabulary Plus Comprehen.	62.2	66.2•• (6%)	69.0•• (5%)	70.7•• (5%)	73.5•• (5%)	72.7• -(1%)	69.4•• -(5%)
Index WPM x % Comp.	157	194 (24%)	236•• (27%)	299•• (40%)	356•• (36%)	345•• -(7%)	320•• -(16%)
Grade Point Average	2.40 (High School)				2.53••	2.52 -(0.4%)	2.60•• (3%)

•p <.05

••p< .01, assuming parallel test forms

[a] percentage=change/pretest; negative sign shows decrease

The mean comprehension scores show a steady gain during the class but a sizeable drop after the class ended. The 2, 7, and 8 groups actually dropped below the Control group on the second semester testing. Only the

Control Reader group improved two semesters after the course ended although the Skimmer-Scanner group improved the first semester after the course ended.

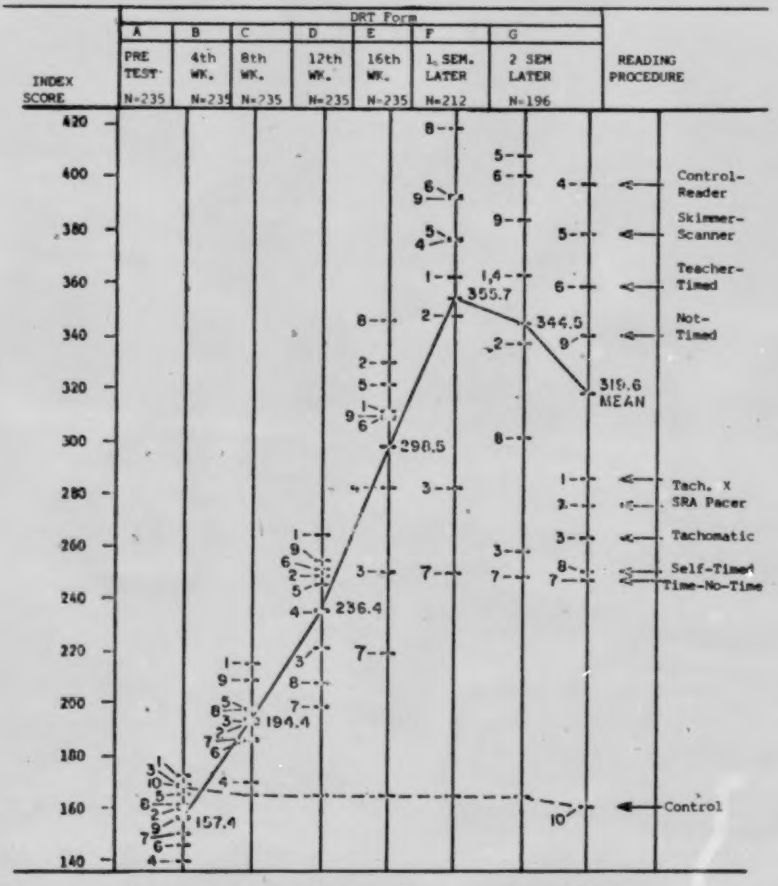

Fig. 1. Mean index achievement for ten subgroups and total experimental group at each period of evaluation.

The index achievement score more than doubled during the class and decreased slightly after the class ended.

The pattern of mean index achievement shows that Group 8 improved seven rank order positions between the 8th and 12th week, while groups 1, 9, and 6 each lost three rank order positions. Groups 6 and 4 both improved in rank order with time, except for week 12 when they showed a decrease in

rank order. All five machine groups were bunched together in rank order at the end of the 16 week class. The Tach. X and SRA Pacer decreased dramatically in rank order during the 8th to 16th week of class.

The ten groups were not significantly different on mean index scores at the beginning, but all nine experimental groups improved significantly during the 16 weeks when compared to the Control group. As the length of class time increased from 4 to 16 weeks, the achievement differences between the experimental groups and also between the Control and experimental groups increased. At the 16th week, seven groups, (8, 6, 9, 5, 4, 1, and 2) improved significantly more than the lowest experimental group (7) and four groups (1, 2, 3, and 7) improved significantly less than the highest experimental group (8) but significantly more than the Control group (10). Also three (1, 2, and 3) of the five machine procedure groups (1, 2, 3, 4, and 5) achieved significantly less mean index improvement than the Self-Timed group.

The pattern of the Control Reader group is outstanding in the fact that it ranked tenth in the pretest and then showed relatively steady progress in rank order improvement during the 16 weeks of class and at the second semester follow-up testing it was first in rank order. The pattern of the Teacher-Timed (6) group was almost as outstanding going from ninth to second during class, and finishing third. In contrast, the Self-Timed group started fifth, went up to first at the end of the class and decreased to the eighth rank order position two semesters after class. The Tachomatic and Time-No-Time groups remained low in rank order throughout the entire study.

All nine experimental groups continued to be significantly higher than the Control group on mean index achievement at and beyond the 16th week. The significant differences among the experimental groups increased considerably after the class ended. The highest index achievement group (4) was significantly higher than groups 1, 2, 3, 8, and 7 at the second semester testing, while the lowest index achievement group (7) was significantly lower than groups 9, 6, 5, and 4.

The multiple correlation coefficients in Table 2, relating the best four predictor variables from the 11 pretest measures with the 16 week comprehension, index and GPA for all 135 experimental subjects was .77, .62, and .75 respectively. The multiple correlation with WPM was only .39. The pretest predictor variables that entered the multiple correlation most frequently were vocabulary plus comprehension, WPM, vocabulary, index, ACT-E, ACT Composite, ACT-SS and high school GPA.

Table 2

Pearson and Multiple Correlation Coefficients
Relating Predictor Variables to 16 Week Achievement Scores
N=235

Predictor Variables	16th Wk WPM	16th Wk Comp.	16th Wk Index	16th Wk GPA
Pre WPM	.20****	.20***	.23	.25
Pre Vocab.	.34**	.68	.57***	.37
Pre Comp.	.21	.62	.47	.42
Pre V+Comp.	.31***	.72*	.58*	.44
Pre Index	.23	.57****	.45	.43**
ACT E	.32	.58**	.51****	.49
ACT M	.26	.45	.40	.44
ACT SS	.33	.58	.52**	.49
ACT NS	.30	.50	.47	.40
ACT Composite	.33*	.59	.53	.52***
H.S. GPA	.18	.37	.32	.71*
Multiple R	.39	.77	.62	.75

*	First Variable in Multiple Correlation
**	Second Variable in Multiple Correlation
***	Third Variable in Multiple Correlation
****	Fourth Variable in Multiple Correlation

SUMMARY

The results of this study indicate that significant gains in reading achievement were made throughout the class and although most groups decreased somewhat in the follow-up testing, the final results remained significantly better than both the Control and pretest level of achievement. The Control Reader, Skimmer-Scanner and Teacher-Timed groups were the most outstanding, the Self-Timed group did well during the course, then fell apart and the Tachomatic and Time-No-Time groups were at the bottom of the rank order most of the time.

RECOMMENDATIONS

1. A validation study should be carried out with the seven forms of the test assigned randomly within each group at each test period.

2. Since index achievement improved significantly at each testing period up to 16 weeks, an extension of the reading course should be considered.

3. If a validation study shows the same type of results and the three groups (Teacher-Timed, Control-Reader, and Skimmer-Scanner) continued to improve after the course, while the other six experimental groups decreased, a comprehensive study of both the procedure and students involved should be made.

REFERENCES

Berger, A. Selected review of studies on the effectiveness of various methods of increasing reading efficency. *Journal of the Reading Specialist*, Dec. 1966, *6*, 74-87.

Braam, L. S., & Berger, A. Effectiveness of four methods of increasing reading rate, comprehension and flexibility. *Journal of Reading*, *11*, 346-352.

Diagnostic Reading Tests. Mountain Home, N. C.: The Committee on Diagnostic Reading Tests, 1947.

Cosper, R., & Kephart, N.C. Retention of reading skills. *Journal of Education Research*, Nov. 1955, *49*, 221-216.

Courtney, L. The use of instrumentation in reading. In G.B. Schick & M.M. May (Eds.), *New frontiers in college-adult reading*. National Reading Conference 15th Yearbook. Milwaukee: the Conference, 1966. Pp. 13-22.

Miller, L. L. *Increasing reading efficency*. (Rev. ed.) New York: Holt, Rinehart and Winston, 1964.

Nikas, G. B. A study of teacher orientated versus machine orientated developmental reading classes at the college level. *Journal of Reading*, Jan. 1965, *8*, 214-216.

Rankin, E. F. The relationship between reading rate and comprehension. In G. B. Schick & M. M. May (Eds.), *New frontiers in college-adult reading*. National Reading Conference 15th Yearbook. Milwaukee: the Conference, 1966. Pp. 1-5.

Ray, D. D. The permanency of gains made in college reading improvement programs. In A. J. Figure (Ed.), *Improvement of reading through classroom practices*. International Reading Association Proceedings, 1964. Pp. 192-193.

Staton, T. F. Preliminary evidence on permanency of reading rate increases following intensive training in a reading lab. *American Psychologist*, 1950, *5*, 341-342.

Traxler, A. E., & Jungeblut, A. What does recent research indicate with regard to the value of controlled reading by means of mechanical devices? Research in reading during another four years, July 1, 1953—Dec. 31, 1957. *Educational Records Bulletin*, 1960, *75*, 44-47.

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THE OMBUDSMAN FUNCTION OF THE COLLEGE LEARNING CENTER

After defining the terms *ombudsman* and *learning center*, this paper shall explain how the college learning center finds itself in a position to serve as academic ombudsman, especially in the larger institutional setting. Further, the paper shall demonstrate that because of the learning center's special concern with facilitating student learning, it has become intercessory for clients with academic grievances.

THE CAMPUS OMBUDSMAN

The 150-year-old Swedish concept of the ombudsman materialized on American campuses in 1967, perhaps as partial remedy for problems generated by the largeness and bureaucratic impersonalism of colleges and universities (Hallberg, 1968) Just as bureaucracy is a necessary concomitant of size, so is an ombudsman a necessary intermediary in multiversities that become so complex that students become lonely, lost, and alienated (Schlossberg, 1970).

Although it was the college president who first seized the idea and chose to appoint an ombudsman as his confidential aide and as a troubleshooting adviser who would handle minor grievances, more lately the office of ombudsman has become the special concern of students who find themselves powerless when wronged or ignored by the system. Aware that the "full scope and variety of student problems cannot be anticipated by the institution [Rowland, 1969b, p. 442]" and concerned that the "procedures for instituting change and for settling student grievances do not even respect the rights guaranteed in civil courts (Linowitz, 1970, p. 23)" students have sought an agent who possesses an "awareness of the individual and the problems of the bureaucracy (Schlossberg, 1970, p. 1)."

The definition that proceeds from these demands is interesting. The campus ombudsman becomes that person who receives complaints primarily from students (Rowland, 1969a) who come with "personal problems whose solution does, not jeopardize the future of the university (London, 1970, p. 364)." His assignment is to effect the solution of legitimate grievances solely through noncoercive strategies of inquiry, negotiation, and persuasion. (See Buccieri 1968; Kiester 1971; Lachman & Bresnick, 1971). However, London affirms that "if he does no more than listen, the ombudsman performs an invaluable service for the university (p. 364)."

THE COLLEGE LEARNING CENTER

Learning centers also respond to unresolved student difficulties. Sensitive to the academic unpreparedness of students, to the impersonalism and complexity of large-class instruction, to perfunctory computer grading, to abusive applications of educational media, and to the special arrogance of professors who think of any troubled student as merely a nuisance (Farber 1969), student learner-oriented learning centers have emerged at an accelerated rate since 1967. Typically, the centers are designed to diagnose and treat clients' deficiencies in reading/study skills, to sharpen students' test-taking techniques, to sensitize their academic etiquette, and otherwise prepare academically inept clients to survive in college. (For examples see: Berg, Ellison & Rose, 1971; Biggs, Boyle, Felton, Thomas, and Wilson, 1971; Christ 1971; Hultgren, 1970; Kerstiens, 1971; Williams, Jacobson, & Arnold, 1971.) Such centers attempt to provide *all who want to learn with access to available resources at any time in their academic career.*

Although individual learning centers are likely to develop personalities colored by the ecology within which they flourish, Christ, having reviewed the evolution of such centers, describes five functions typically carried on by them: as a place where a learner gets tutorial help; as a referral agency to other helping agencies such as medical, psychological, and spiritual; as a library of basic study aids in the content field; as a training facility for paraprofessionals, peer counselors and tutors; as an information clearing house to update faculty in latest learning research and methodologies (1971, p. 35).

THE OMBUDSMAN IN THE LEARNING CENTER

Hultgren (1970), however, has strongly suggested that yet another function is germane to the thrust of the learning center. He mentions the "adoption of a document called 'Students Rights and Freedoms,' which guides the relations of all members of the academic community in their relations with students (p. 92)." He sees one learning center function as that of facilitating student voice in areas that deeply influence his academic effectiveness. He further sees this academic effectiveness threatened unless an agent is drafted to guide, to provide counsel, and even to intercede for students who complain about members of the faculty and their pedagogical tactics.

It is in this area of what Rowland (1969b) has identified as purely academic grievances that the learning center director has found himself, sometimes reluctantly, working to achieve justice or at least accommodation for students. In fact, it is because of their direct concerns and associations with academic survival, with the high-risk student, with innovative educational media, and, finally, with personnel that are ever-curious about searching eclectically for answers to educational puzzles that learning centers have become residences for an *ad hoc* academic ombudsman.

ACADEMIC SURVIVAL

The typical learning center director and his staff have relinquished any hold they may have had on the academic dream; that the process of getting a degree and clearing the curricular hurdles is necessarily an enlightening, valuable, humanizing process that produces better, happier citizens. Rather, using a systems approach to reading study skills attainment, the learning practitioner concentrates on helping students stay in the academic race, while taking no ethical position on the real or fancied virtues of degreesmanship. His interests become essentially pragmatic: helping students to improve their reading, writing, listening, notetaking, test-taking skills -- the grade-getting survival skills -- so that they can endure a curriculum that is sometimes calculatedly intimidating and is usually obsolete. Further, while carrying on this process of redirection and behavior modification, he finds himself in sympathy with and champion for the student who has been victimized by what Linowitz calls bad teaching -- "both what is taught and how it is taught (1970, p. 20)." Linowitz becomes more explicit: "Some instructors present the material, grade papers, and treat students in ways that are seen to be incompetent, offensive or unfair (p. 20)."

Given the painful realities of the curricular system, the learning center person cannot help notice that there is need for someone to serve as counselor for the academically unclever student, then as a procurer of tutors or peer counselors for students needing peer instruction or guidance, and, finally, if all other strategies fail, as agent for a client whose professor is suspicious of students who enjoy a state of mind that he cannot share. Commonly, learning center personnel are asked to serve as interpreters for an instructor who possesses the gift of being able to say things so that they can be understood in various ways -- until the day of the test. Or they are asked to dicipher cryptic and sometimes misleading editorial hieroglyphics appended to a composition and then to counsel the student who would improve his writing and hopefully his grade. They are implored to help students read and ingest the content of texts whose reading levels, according to Hagstrom (1971), are commonly years beyond their readers. Likewise, they are asked to prepare students for test items that are educationally suspect or unmitigatedly ambiguous. Finally, they are asked to intercede for a student whose perishable ego is threatened when confronted with the utter curmudgeonliness of the professor who is fatalistically but comfortably committed to the respectability of the curve or to building an empire in which students are regarded as serfs.

In a singular position to see these factors operating in the academic ecology, the learning center director, if he is at all human, will find that he can hardly avoid serving as ombudsman.

THE HIGH-RISK STUDENT

Perhaps because they are more approachable or because other agencies in the system will seldom tolerate such programs or clients, learning centers have become the refuge for high-risk students, especially those students who are classified as disadvantaged. Therefore, the director will find himself characteristically in charge of federally and state funded, acronymically identifiable remedial and or developmental programs, such as EOP, OEO, VEA, and other programs that traffic principally in black and chicano populations.

"Almost without exception," states Moore, "disadvantaged students are students with a staggering number of problems (1970, p. 56)." Besides the obvious ethnolinguistic difficulties, these students have a host of other problems involving economics, student environment, family harmony, and other limitations demanding institutional social work if more than a trifling percentage of them are to survive. Further, they are not prepared to cope with deadlines, waiting lines, fees, forms, and the whole array of official bureaucratic ritual that is part of the academic structure. Finally, the vast majority of disadvantaged students are slow learners and as such are inevitably in need of special counseling, often in need of individual tutoring, and, especially are in need of an ombudsman who will listen to their problems and translate them to those who need to share that understanding.

EDUCATIONAL MEDIA

In order to reach the marginal, disadvantaged student, today's learning center uses specially trained and qualified personnel, unique hardware, exhaustive and innovative tutoring programs, and constantly re-evaluated materials in order to perform the miracle of beating the system. Committed to a systems approach to learning, the learning center person understandably becomes apologist for and exemplary practitioner in the art (and science) of matching the most effective media with the diagnosed needs of a client. Therefore, he does not view the computer as a souped-up adding machine; rather, he is inclined to champion the liberating aspects of technology especially as he provides a client with effective learning alternatives.

While introducing clients to innovative media that will help them survive in the system, the practitioner is serving a primary function as ombudsman. Further, while introducing his colleagues to more sophisticated diagnoses and treatment than is customarily implemented by them, he eventually manages to obtain more direct help for the student who otherwise would flounder in the pool of academic confusion.

Yet another ombudsman function grows out of the technological area: that of technological ombudsman (Toffler, 1970). What ever the long-term salutary effects of educational media, some of the immediate applications have been mindless and abusive, for enthusiastic but uninformed educators have installed expensive but sometimes inefficient hardware and software in the hope that students would be served. Again, sometimes faculty have purchased materials whose advertising claimed nonexistent virtues, and students have been expected to learn from such materials. It is, then, in a protective function that a learning center director may serve as resource person and as a consultant so that media applications are not disillusioning to students and faculty.

THE LEARNING CENTER STAFF

Before one looks to learning center personnel to function as academic ombudsmen, he wonders whether at least two other functionaries in the collegiate structure might not be suited for the job, namely, the dean of students or the departmental dean. But, as Capuzzi (1971) indicates, the dean of students, being a member of the student personnel services, is typically not sufficiently trained to help a client whose difficulties are clearly scholastic. Again, the departmental dean is usually divorced from the more practical considerations of instructional lag; also, he is liable to be over-protective of prevailing instructional practices and of faculty, especially faculty whom he has been instrumental in hiring and retaining. In fact, as one investigates alternative homes for the ombudsman, he is struck with the paradox that most educational executives want innovation but without change. Moreover, he is faced with the probability that most well-ensconced executives, faced with the radical adjustment to ombudsmanship, would experience a crisis in their self-esteem.

It should be apparent, however, that qualifications for learning center personnel and for academic ombudsmen are essentially congruent. For both positions, a personnel director would look for qualities of an academic renaissance man or certainly for traits of versatility, tolerance, and patience. Because of their Naderian postures, both positions tend to alienate their holders from their colleagues. Further, these offices are usually filled by persons who must be satisfied with their own expert competence and not emotional intimacy with faculty (Sanford, 1969). Again, each position calls for a person who can at least empathize with the notion that the majority of students do know how they can learn best if only given the opportunity to exercise their talents (Flack, 1968). Finally, since requisites for both positions would seem to be a special kind of insanity that thrives on wide-ranging, emotionally charged problem solving, it would seem that these jobs merge into one. Ombudsmaniaically

speaking, if a learning center director has half a mind to become an ombudsman, that's all he needs.

NOTE

Indicative of student interest in the subject is the fact that the Associated Students of El Camino College sponsored this paper's presentation by underwriting one-half of participation expenses and by resourcefully obtaining matching funds from the college administration.

REFERENCES

Berg, J., Ellison, J., & Rose, D. Learning center concept in action. In Christ (Ed.), *Interdisciplinary aspects of reading instruction.* Western College Reading Association 4th Proceedings. Long Beach, Calif.: The Association, 1971. Pp. 20-23.

Biggs, B. E., Boyle, H.H., Felton, G. S., Thomas, L. J., & Wilson, B. R. The student development center: a ten-week experience in re-education. In F. Christ (Ed.), *Interdisciplinary aspects of reading instruction.* Western College Reading Association 4th Proceedings. Long Beach, Calif.: The Association, 1971. Pp. 24-31.

Buccieri, C. Ombudsman: new troubleshooter on campus. *College and University Business,* March, 1968, *44,* 52-55.

Capuzzi, D. Academic skills counseling: a neglected area in counselor education. *Counselor Education and Supervision,* Winter 1971, *10,* 191-193.

Christ, F. Systems for learning assistance: learners, learning facilitators, and learning centers. In F. Christ (Ed.), *Interdisciplinary aspects of reading instruction.* Western College Reading Association 4th Proceedings. Long Beach, Calif.: The Association, 1971. Pp. 32-41.

Farber, J. *The student as nigger.* New York: Contact Books, 1969.

Flack, M. Innovation and university in crisis: three proposals. *Educational Record,* Summer 1968, *49,* 347-349.

Hagstrom, J. A comparison of the reading abilities of a junior college population and the readability levels of their texts. In F. Christ (Ed.), *Interdisciplinary aspects of reading instruction.* Western College Reading Association 4th Proceedings. Long Beach, Calif.: the Association, 1971. Pp. 62-69.

Hallberg, E. The Ombudsman for the University. *The Journal of College Personnel,* March 1968, *10,* 112-115.

Hultgren, D. The role of the individual learning center in effective educational change. In G. B. Schick and M. M. May (Eds.), *Reading: Process and Pedagogy,* National Reading Conference 19th Yearbook (Vol. 2). Milwaukee: the Conference, 1970. Pp. 89-94.

Kerstiens, G. Centers and other facilities. In R. Ross (Ed.), *Junior-Community College Reading/Study Skills: An Annotated Bibliography.* Newark, Del.: International Reading Association, 1971. Pp. 32-33.

Kiester, E., Jr. Ombudsman: new BMOC. *Today's Health.* April 1971, *49,* 34-37.

Lachman, S., & Bresnick, D. An educational ombudsman for new york city? *School and Society,* March 1971, *99,* 168-170.

Levinson, B., & Pfeffer, C. A university learning center. In F. Christ (Ed.), *Interdisciplinary aspects of reading instruction.* Western College Reading Association 4th Proceedings, Long Beach, Calif.: the Association, 1971, Pp. 89-95.

Linowitz, S. *Campus tensions: analysis and recommendations.* Washington, D.C.: American Council on Education, 1970.

London, H. Underground notes from a campus ombudsman. *Journal of Higher Education.* May 1970, *41,* 350-364.

Moore, W. Jr. *Against the odds: the high-risk student in the community college.* San Francisco: Jossey-Bass, 1970.

Rowland, H. Campus ombudsman. *Today's Education,* October 1969, *58,* 37-39. (a)

Rowland, H. The Campus ombudsman: an emerging role, *Educational Record.* Fall 1969, *50,* 442-448. (b)

Sanford N. *Where colleges fail.* San Francisco: Jossey-Bass, 1969.

Schlossberg, N. An ombudsman for students. In L. Fitzgerald, W. F. Johnson, & W. Norris (Eds.), *College Student Personnel: readings and Bibliographies.* Boston: Houghton Mifflin, 1970. Pp. 79-82.

Speck, D. Ombudsman on campus: a review. *Currents* '71, ERIC/CHE, Jan. 1971, 1-6.

Toffler, A. *Future shock*, Bantam Books, 1970.

Williams, G., Jacobsen, P., & Arnold, J. Prescriptive teaching linked to a learning and tutorial center. In F. Christ (Ed.), *Interdisciplinary aspects of reading instruction.* Western College Reading Association 4th Proceedings. Long Beach, Calif.: the Association, 1971. Pp. 147-155.

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INFORMATION SOURCES IN STUDY SKILLS RESEARCH

This paper is a result of a request to summarize relevant study skills research. When the Educational Resources Information Center (ERIC) was created, one of its first tasks was to identify areas in reading research literature which had not been sufficiently summarized. One such area was that ordinarily called study skills. The authors were asked to write a state-of-the-art monograph which would include relevant knowledge pertinent to students study habits; testing for improvement of academic performance, and skills training programs at the secondary and college level.

While pursuing this task, we have encountered information which we think may be useful to professionals in the field. In this paper we want to : summarize some useful sources of information for research in the study skills area; report on a survey of journal coverage of study skills literature; and suggest a strategy to keep current in study skills research today.

SOURCES OF INFORMATION

Relevant sources range from annual summaries, indexed guides, and current journals,to personal retrieval systems.

Summaries

Ideally, a single source would provide a concise, complete summary of relevant research literature to date. The monograph being prepared for ERIC will be the first such effort but as such will be far from complete and not necessarily ideal. Monograph publication will not occur for at least six months, however. An abbreviated outline of the monograph follows:

Introduction
  Purpose
  Audience
  Inclusions-Exclusions
  Description of Format
  How to Use the Monograph
Part I. Factors Which Affect Success
  I. The Student Himself
  II. The World Around the Student
  III. The Nature and Condition of Learning
Part II. The Study Skills
Section 1: The Basic Tool: Reading
  IV. The Study-Type Reading Process
  V. Studying Specific Content Areas
Section 2: Other Study Tools and Skills
  VI. Classroom Skills
  VII. Language Skills
  VIII. Skills in Examination and Evaluation
Part III. Study Skills Programs
  IX. Present Practices
  X. Designing Future Study Skills Programs
Appendices

An existing resource for summary type information is the *Encyclopedia of Educational Research*, published by the American Educational Research Association. Articles written by specialists evaluate and put into perspective the findings of educational research, accompanied by long, selective bibliographies. Topics such as "Reading," "Learning," and "Homework" cover research relevant to study skills. Summaries of learning research also appear periodically in *Psychological Review*.

Three major annual summaries of reading research often include information on study skills:

> the review edited by Theodore Harris and appearing along with a bibliography in the *Journal of Educational Research*.
>
> a review written by Emery Bliesmer of the University of Pennsylvania, appearing in the yearbook of the National Reading Conference and covering research primarily in secondary, college and adult reading but also including many studies relevant to study skills.
>
> the Gray summaries, continued after his death by Helen Robinson and Sam Weintraub of the University of Chicago, prepared as a special edition of the *Reading Research Quarterly* published by the International Reading Association.

Unfortunately, these do not cover all topics necessary for an adequate survey of study skills literature. No single comprehensive coverage is available.

Indexed Guides and Abstracts of Liberature

Several sources provide broader topic coverage in abstract and/or citation form. Most have annual and biannual cumulative volumes available.

Psychological Abstracts. Since 1927 this publication of the American Psychological Association has provided 1000 to 1500 noncritical abstracts monthly, roughly 22,000 each year. The lag between the publication of an article in a psychological journal and its appearance in *Psychological Abstracts* tends to be twelve to eighteen months. In addition, work on the published article probably started roughly eighteen to twenty-one months before it appears. This is an extremely useful source with good topic coverage.

Education Index. Published ten months of the year, over two hundred journals are searched to provide this index monthly. Approximately two hundred articles are included, indexed by subject and or author, citation and cross references. Articles from proceedings, yearbooks, bulletins, monographs, and United States documents may be included. While publication lag is somewhat less here than in *Psychological Abstracts* it still will not be up-to-date.

The Reader's Guide to Periodical Literature. Published since 1900, the *Guide* appears semi-monthly with single issues in July and August. The same company publishes both the *Guide* and the *Education Index* and the formats of presentation are similar. While this index includes articles found in approximately one hundred-fifty United States popular non-technical magazines, the selection represents all important scientific and subject fields. Today, articles in popular magazines sold over the counter frequently discuss professional information and have the advantage of being written in a relatively readable technical language.

Research in Education. The Educational Resources Information Center began publishing its monthly abstract journal in 1966. Entries from over two hundred journals are included. For each citation there is an entry, resume, accession number, and list of appropriate terms form the ERIC Thesauraus. In addition, reports on completed research and research-related information are included. Projects funded and underway are announced and other significant documents prepared by each of the twenty-one ERIC Clearinghouses appear. Additional information concerning ERIC services can be obtained from Central ERIC, Division of Research Training and Dissemination, Bureau of Research, U.S. Office of Education, Washington, D.C. 20202.

Current Index to Journals in Education. A copmpanion publication to *Research in Education,* this monthly index was developed by Crowell Collier and Macmillan (CCM Information Science, Inc.), in cooperation with ERIC and began publication in 1969. Approximately 1000 articles from over 250 journals are indexed by main entry, subject, author, and source journal. Articles are monitored and indexed by each of the twenty-one ERIC Clearinghouses from journals specifically related to its mission.

Subject headings provided for each article are drawn from the *Thesaurus of ERIC Descriptors* and are consistent with those in *Research in Education. ERIC Clearinghouse Retrieval of Information and Evaluation in Reading* (CRIER). Services and materials regularly available from ERIC / CRIER include annotated and abstract bibliographies, guides to materials and sources, interpretive papers, and state of the art monographs. Approximately twenty-five annotated bibliographies published jointly with the International Reading Association can be obtained. These cover various ERIC/CRIER reading classifications from "measurement and evaluation of reading" to "study skills and content reading." Abstract bibliographies cover doctoral dissertations in reading. Bibliographies will also be available for each of the state of art monographs which cover a number of facets of the reading process. Information concerning ERIC CRIER can be obtained from ERIC CRIER, Pine Hall, Indiana University, Bloomingtron, Indiana 47401.

The following additional sources are often useful. *Dissertation Abstracts* - published by University Microfilms, Ann Arbor, Michigan. *Government Document Bibliographies in the U.S. and Elsewhere* by James B. Childs. *Manual of Government Publications* - U.S. and foreign, published by Appleton Press. *Ulrich's Periodical Directory* - edited by Eileen C. Graves.

Professional Journals

The most current published source of study skills research is the journals themselves as they are issued. To completely cover the study skills literature, a large number of journals would need to be searched. A journal survey for the ERIC study skills monograph is reported in the next section of this paper.

Retrieval System

The last of our suggested sources is to develop a personal retrieval system covering the research particularly relevant to one person or institution. At the University of Minnesota the senior author maintains an information retrieval system. This system covers reading and study skills separately and is multiple-coded by topic. The reading system includes topics such as "programs and outcomes," "reading process-factors," "etiology-causation diagnosis," "auditory hearing," "rate," etc. Study skills system codings include "absence and tardiness," "dissertations and theses," "library use and study," "time use, " "notetaking," "counseling," "exam strategies," etc. Abstracts are included from all of the journals that would be found through a search of the annual summaries mentioned, the Proceedings of the National Reading Conference, the IRA, the AERA, and the College Reading Association, as well as about twenty journals. We estimate that, by most definitions of study skills research, we are probably getting ninety percent of the literature.

In the whole retrieval system which covers secondary, college and adult reading as well as study skills research we now have more than eleven thousand entries, and this number is growing at more than a thousand per year. Maintaining the system is expensive and requires the time of several research assistants and typists. We hesitate to recommend this procedure to everybody. However, it is the only way that we know to provide rapid access to the research literature to graduate students and others who want to investigate topics in these fields.

REPORT ON SURVEY OF JOURNAL COVERAGE

In the process of preparing the review of study skills research for the ERIC Center we began with those articles that already existed in an information retrieval system at the University of Minnesota. We found that in all of these sources many articles were not really relevant to a research of study skills literature. We finally ended up with a total number of research studies which equalled approximately 1500 entries. A certain number of these were parts of books, unpublished materials, and entries from dissertation abstracts. Some were also from various yearbooks from the International Reading Association, the National Reading Conference, the North Central Reading Association, and other such professional organizations. The remaining 1243 articles were from professional journals.

We thought it would be useful to other professionals to know what journals seem to cover the study skills research literature, but at this point we should mention two limitations. First of all, study skills literature is defined here as that literature that was surveyed by these authors for the purpose of this review. Others doing a similar review might have selected other studies which would make the tally of appropriate journals look quite different. Secondly, the results to be presented below are an after-the-fact empirical study of the location of journal articles. The bibliography for a major review had already been identified. These are presented only in the hope that they might save some effort on the part of future researchers and reviewers.

Table 1

Journals Containing Study Skills Research

JOURNALS	FREQUENCY	PER CENT	CUMULATIVE PER CENT
1. Journal of Educational Psychology	171	13.7	13.7
2. Dissertation Abstracts	144	11.6	25.3
3. Journal of Educational Research	103	8.3	33.6
4. School and Society	47	3.8	37.4
5. School Review	28	2.3	39.7
6. Elementary English	27	2.2	41.9
7. Personnel and Guidance Journal	26	2.1	44.0
8. Elementary School Journal	26	2.1	46.1
9. Journal of Counseling Psychology	25	2.0	48.1
10. Journal of Developmental Reading *	24	1.9	50.0
11. Journal of Experimental Education	23	1.8	51.8
12. Psychological Reports	23	1.8	53.6
13. Journal of Higher Education	21	1.7	55.3
14. Journal of Reading *	21	1.7	57.0
15. Journal of Applied Psychology	19	1.5	58.5
16. Educational and Psychological Measurement	19	1.5	60.0
17. English Journal	17	1.4	61.4
18. British Journal of Educational Psychology	16	1.3	62.7
19. Education	16	1.3	64.0
20. Reading Teacher	14	1.1	65.1
21. Teachers College Reports	13	1.0	66.1

JOURNALS (continued)	FREQUENCY	PER CENT	CUMULATIVE PER CENT
22. Journal of Psychology	13	1.0	67.1
23. Journal of Communication	13	1.0	68.1
24. Science Education	11	.9	69.0
25. Speech Monographs	11	.9	69.9
26. School Science and Mathematics	10	.8	70.7
27. Journal of Abnormal Social Psychology	10	.8	71.5
28. Journal of Programmed Instruction	10	.8	72.3
29. American Journal of Psychology	9	.7	73.0
30. Journal of Genetic Psychology	9	.7	73.7
31. California Journal of Educational Research	8	.6	74.3
32. Review of Educational Research	8	.6	74.9
33. American Psychologist	8	.6	75.5
34. Journal of Consulting Psychology	7	.6	76.1
35. Journalism Quarterly	7	.6	76.7
36. Educational Research Bulletin	7	.6	77.3
37. Education Records Bulletin	6	.5	77.8
38. Mathematics Teacher	5	.4	78.2
39. College English	5	.4	78.6
40. Psychology and the Schools	5	.4	79.0
41. Junior College Journal	5	.4	79.4
42. Science Teacher	4	.3	79.7
43. Peabody Journal of Education	4	.3	80.0
44. Psychological Bulletins	4	.3	80.3
45. Phi Delta Kappan	4	.3	80.6
46. Reading Research Quarterly	4	.3	80.9
47. Journal of the Reading Specialist	4	.3	81.2
48. Journal of Experimental Psychology	4	.3	81.5
49. Journal of Social Psychology	4	.3	81.8
50. University of Kansas Bulletin of Education	4	.3	82.1
51. Alberta Journal of Educational Research	4	.3	82.4
52. Supplemental Education Monographs, Univ. of Chicago	4	.3	82.7
53. Academic Therapy Quarterly	3	.2	82.9
54. Journal of General Psychology	3	.2	83.1
55. Journal of Personality and Social Psychology	3	.2	83.3
56. Personnel Journal	3	.2	83.5
57. American College Testing Program	3	.2	83.7
58. National Council of Mathematics Teachers Yearbook	3	.2	83.9
59. Journal of Chemical Education	3	.2	84.1
60. Journal of Education	3	.2	84.3
61. Journal of Negro Education	3	.2	84.5
62. Illinois School Research	3	.2	84.7
63. Journal of Applied Behavioral Science	3	.2	84.9
64. Journal of Personality	3	.2	85.1
65. Australian Journal of Psychology	3	.2	85.3
66. Education Administration and Supervision	3	.2	85.5
67. University of Pittsburgh School of Education Journal	3	.2	85.7
68. Journal of National Education Association	3	.2	85.9
69. Journal of Educational Method	3	.2	86.1
70. Journal of Psychological Research	3	.2	86.3
Other journals (frequency less than 3)	153	(13.7)	(100.0)

The Journal of Developmental Reading is now The Journal of Reading.

Grand total sources	1507
Total journals	1243

	FREQUENCY	PER CENT
Journals	1243	82.48
Yearbooks	107	7.10
Unpublished materials	81	5.38
Books	76	5.04

Table 1 shows the journals searched in descending order of article frequency. The journal name is followed by an entry showing the number of articles in the bibliography from that journal. The percentage and the cumulative percentage follow. The percentage gives a rough estimate of the proportion of the study skills articles found in that journal. The cumulative percentage tells you approximately what percent of the articles in this bibliography would have been found by a search of the journals mentioned in the order mentioned. For example, if ten journals were searched, that would mean that you would go down the list and search everything down to the *Journal of Developmental Reading* (now called *The Journal of Reading*). You would have coverred about fifty percent of all of the entries in the bibliography at that point. In other words the cumulative percent tells you what proportion of total journal coverage you would achieve by going different distances down the list.

It should be mentioned that these percentages include only those articles found in journals. They do not include materials from yearbooks, annual reviews and other sources except where those reviews would have led you to these same journals.

As a point of comparison, in 1968 ERIC conducted an analysis of 5000 articles on reading appearing in journal literature since 1900. The Herner Study resulting found that 44 journals covered eighty percent of the literature important to coverage of research in reading. Up to 125 journals were needed to cover the remaining articles. At the University of Chicago Reading Research Center, 76 journals are most frequently found to provide articles with seven representing disproportionately large numbers. These included the *Reading Teacher, Journalism Quarterly, Journal of Educational Research, Elementary English, Elementary School Journal, Journal of Developmental Reading*, and *Journal of Reading*.

It is obvious, however, that a large number of journals would have to be searched to completely cover the study skills literature as it is defined in this paper. If you want to achieve eighty percent coverage then you would have to read or subscribe to about 43 journals.

A STRATEGY FOR KEEPING CURRENT

Obviously none of us will know everything happening in the reading and study skills field. Although we hesitate to recommend professional behavior to colleagues, there are some suggestions for keeping current that grow out of the experience we have been having with this review of study skills research.

With budgets limited, priorities need to be established. Our experience has now suggested that the following sources of information should be available so far as possible. The list that appears below is in descending order of importance as we see it very subjectively and with a very limited empirical basis.

1. Read the forthcoming ERIC monograph summarizing study skills, the *Encyclopedia of Educational Research* entries on reading, homework,

learning, and other related topics. Watch for *Psychological Review* articles on relevant topics.

2. Read the annual *Summaries of Related Research* by Harris, Bliesmer, and Weintraub and Robinson.

3. Utilize ERIC journals including RIE and CIJE as well as ERIC/CRIER services.

4. Be familiar with and use often such indexed guides to literature as *Psychological Abstracts*, the *Education Index*, and the *Reader's Guide to Periodical Literature*.

5. Subscribe to whatever journals can be fit into the budget.

6. Develop your own retrieval system.

We suspect that those professionals who do seem to be most current in their field do so in ways other than reading. While we have been dealing with surveys of written material, we have not included discussion of attendance at professional conferences, discussions with colleagues, and other similar professional behaviors which certainly cannot be overemphasized as sources of information. A list of professional organizations in which reading and study skills specialists might participate is provided below.

PROFESSIONAL ASSOCIATIONS

International Reading Association
6 Tyre Avenue
Newark, Delaware 19711

National Council of Teachers of English
508 South 6th Street
Champaign, Illinois

American Psychological Association, Inc.
1333 16th Street NW
Washington, 6, D.C.

American Educational Research Association
1201 16th Street NW
Washington, 6, D.C.

Educational Records Bureau
21 Audubon Avenue
New York, 32, New York

National Council on Measurement in Education
c/o Wilbur Layton
Dept. of Psychology
Iowa State University
Ames, Iowa

American Personnel and Guidance Association
1605 New Hampshire Avenue NW
Washington, 9, D.C.

National Reading Conference, Inc.
c/o Appalachian State University
Boone, North Carolina 28607

North Central Reading Association
c/o Dr. David M. Wark
101 Eddy Hall
University of Minnesota
Minneapolis, Minnesota 55455

National Education Association in the United States
1201 16th Street NW
Washington, D.C.

National Society for the Study of Education
5835 Kimbach Avenue
Chicago, 37, Illinois

Council for Exceptional Children
1201 16th Street NW
Washington, 6, D.C.

American College Personnel Association
1607 New Hampshire Avenue NW
Washington, D.C. 20009

American Association for Gifted Children
15 Granmerry Park
New York, 3, New York

American Association of Junior Colleges
1785 Massachusetts Avenue NW
Washington, 6, D.C.

Association of College Admission Counselors
North Shore Hotel
Chicago Avenue at Davis Street
Evanston, Illinois

We think that one of the primary weaknesses of the study skills field is that some of the people in it tend to be isolated from the rest of the academic world. Not only that, but the field has lacked the homogeneous quality of most academic disciplines having been associated with various areas from English to Secondary Education. The same esprit de corps as exists in other professional specialties is only beginning to develop for people interested in study skills.

Current changes in higher education make the need for study skills more obvious. A professional specialization is also needed with its own identifiable body of knowledge. As the field grows in importance we would hope that study skills experts would be more widely recognized as such and would be able to exert wider influence in the educational process.

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1971 REVIEW OF RESEARCH ON COLLEGE-ADULT READING

The reports cited in this present review are, in general, ones which have appeared (and were available to this reviewer) during the period of September, 1970, through September, 1971. The number of reports included as relevant for this year's review, 192, is slightly more than the number included in last year's review (Bliesmer, 1971). The Yearbook for the 1969 National Reading Conference (Schick & May, 1970a&b) was not available in time for those of its contents which were pertinent to be included last year; so it has been included in the present review. The Yearbook for the 1970 Conference (Greene, 1971) became available just as final preparations for this review were being made. It was possible to include pertinent references from the last Yearbook only because the number of reports found in the volume which were relevant for the areas of college-adult reading research was considerably less than the number found pertinent in the Yearbook for each of a number of years previously. The *Proceedings* of the Western College Reading Association's fourth annual conference (Christ, 1971) was received too late for inclusion of specific articles in this review. The contents appeared to be mainly descriptions of specific programs in the WCRA area; but several included evaluation reports or other research aspects (e.g., presentations by Adams, Biggs and others, Hagstrom, and Reid). The North Central Reading Association's *Sixth Yearbook* (Wark, 1971a) also contained several relevant reports.

Consistent with past reviews, the references included in this one have been restricted in general to those which deal with, or have fairly direct relevance to reading at college and other adult levels. The review has again been loosely organized or grouped under the several major divisions indicated.

PROGRAMS

Surveys

Several surveys dealing with college and other adult reading programs have again been reported. Among conclusions reached by Dare (1971), based on results obtained with questionnaires sent to 559 two-year colleges, were that nearly all public two-year colleges provided some type of remedial instruction (English and mathematics as well as reading); most colleges refrained from using the term remedial and used such terms as developmental or guided study instead; while preliminary studies preceded the establishment of most programs, few colleges made studies of the programs once they were started (but attitude of faculty and students was reported as favorable in most colleges); and purposes for remedial programs were considered by most colleges to be "salvage, second-chance and redirection". Lowe and Stefurak (1970) presented results from another state survey (Georgia) of college reading improvement programs. Of the 30 out of 58 schools replying, 9 reported that they were not offering reading improvement programs. Franklin (1971) reported results from a questionnaire survey of diagnostic procedures in college and university reading clinics in the United States. (Questionnaires were mailed to 741 clinics; but the percent of response was not indicated.)

Among findings obtained by Berger (1970) through the mailing of questionnaires to corporations, commercial reading firms, and college and university reading centers in the U.S. and Canada (with 27% and 33% response from the U.S. and Canada, respectively) were that corporations in Canada tend to have a greater percentage of high school graduates than U. S. corporations, with a greater percentage of college graduates taking reading improvement courses; specific rate goals of programs ranged from 25 to 18,000 words per minute; respondents indicated gains were maintained; and relatively few colleges and universities provided a reading service for adults.

Evaluations of Programs

Purposes for presenting a number of programs at this conference last year were mainly ones of description (Cartwright, 1970; Christ, 1970; Ewing, 1970); but some also included reports of evaluations to some extent. Kerstiens reported that in the El Cabino College program "point-percentile gains on standardized tests are substantial" and that "we can report measurable progress" on low percentage of attrition, a diminishing flunking rate, and higher passing grades (1970, p. 110). Stewart reported that the mean pre-post reading test score changes have "ranged from 2.0–3.5 grade points per semester from 1967 to date [1970, p. 206]." She also reported that, in a comparison of freshmen groups using cloze and program procedures, both groups made modest gain scores, but not significantly different from one another. Garofalo (1970) did not present any evaluation data in his report of a college program at the University of Maryland, Eastern Shore; but he commented that evaluation was difficult and that the worth of a college program ". . . should be measured in the same way that a library's worth is determined: by the number of students using the program and by the breadth of resources made available to the college community. This method of measurement is far more useful than standardized test scores, or the feelings of the instructor or the students [p. 110]."

Brown, Wehe, Zeinker, and Haslam (1970) found a group of 111 Southwest Texas State University potential dropout students who received counseling from selected and trained upper classmen were significantly superior to a matched control group (which had received no counseling) on prepost counseling SSHA and *Effective Study Test* Scores, on post-counseling study skill survey scores, and on first-semester grade-point averages. Caple (1969) found members of a study group of Oklahoma college students who were required to attend residence hall two-hour study sessions four nights a week for the last half of the semester (after mid-term grade reports) did not differ significantly in achievement at the semester's end from a matched control group who had not participated in organized group study sessions. When Keenen (1971) compared achievement, for three quarters, of groups of University of Florida freshmen who had been admitted even though they fell below minimum basic admission requirements, he found grade-point averages of groups which had received special guidance (including reading improvement programs) and sectioning and reduced course loads did not differ significantly in grade-point averages from groups which had received no special treatment.

Retesting results obtained by Payne (1971) from 126 students, out of an original 160, who had participated in the Northwest State University of Louisiana reading program showed that participants had retined and improved reading rate after 5 semesters, that a control group lost in rate the first semester but showed improvement after 5 semesters, that both experimental control groups retained and improved in vocabulary and total reading score gains, that participants successfully pursued more credit hours than did nonparticipating students, but that achievement in English, mathematics, social science, and natural science was little affected by participation. Pearson (1970) found no significant differences on various measured variables (including reading skills, study habits and attitudes, college achievement, and self-concept) betwen control groups and groups who had group counseling included in a reading improvement program.

Results obtained by Schneider (1971) in experimental remedial English classes in which developmental reading as well as conventional content was taught indicated that emphasis on reading skills could lead to improved writing; but she did not find significant differences over control groups in either writing or reading test score gains. Questionnaire and interview responses obtained by J. L. Smith (1970) from students who had participated in reading and study skills programs at Indiana University reportedly indicated that the program was meeting the needs of the students and presented no major operating problems.

City University of New York freshmen who received 3 hours a week of tutorial instruction, from faculty members who were participating in a federally funded four-week summer reading and writing skills institute, practically all indicated (through written evaluation) that they believed they had made improvement in vocabulary development, reading for main ideas, and study-type reading and that they had been motivated by instructor personnel concerned to assume initiative for further upgrading their reading and study skills, according to Newman (1971).

Pre-College Programs

Several reports were concerned mainly with pre-college programs. Holmes (1971) found a significant relationship between participation in a special summer college preparatory and enrichment program at Jarvis Christian College and academic achievement during the freshmen year. Johnson, Jacobson and Beaber (1970) reported that their analysis of test score gains of a group of college-bound rural high school students in a reading improvment program indicated that vocabulary and comprehension gains were related to "genotypical" variables (such as CA, I.Q., socioeconomic status, sex, race) while reading rate gains were influenced by "phenotypical" variables (such as school attended and college selected).

A group of 184 high-risk high school graduates who participated in Project Speed (Summer Program for Educational Enrichment and Development) in three Georgia junior colleges, which program included instruction in reading, writing, study, and other basic academic skills, and group and individual counseling, were found by Miller, Artepen and Duncan (1971) to score significantly higher than a control group on 11 of 14 variables on which groups had been simular at the beginning (variables including *Nelson-Denny Reading Test* Scores). Pepper (1970) reported that 155 of 182 marginal students enrolled in a Wayne State University summer reading and study skills course later completed four quarters of academic work. Among activities Opison (1970) found reported least often useful by 450 students who participated in a Pennsylvania State University preregistration counseling program during a 9-day period during the summer of 1967 was study skills information.

Comparisons of Methods

Blevins (1971) found a Contrived Contextual method of vocabulary instruction (isolated word study) to be inferior to Wide Reading Natural Contextual and to Practical Senior High School English programs (in which broader natural contexts of messages were conveyed by connected words) for 36 adult institute subjects participating in a thirteen-weeks program. Curry and Roberts (1970) gave a more detailed report of Roberts' dissertation study, in which it was found that none of different schedule practices of reading program groups produced reading and spelling achievement significantly superior to that of any other practice schedule group; but practice was found to be superior to no practice at all. DiSalvi (1970, 1971) found that experimental groups of Newark State College freshmen who had participated in an evening reading and study techniques program obtained higher means than did a control group on study orientation, level of comprehension, and speed of comprehension scores, but not on grade-point averages. Differences among all groups (including control) were not significant, except for speed of comprehension. Experimental group students in a Pennsylvania junior college reading program who participated in a group counseling sessions during one of the three regular weekly reading periods each week were found by Florak (1971) to have increased in ego-strength significantly but not significantly (from regular program groups) in study attitudes or in reading performance (although removing students from one regular class meeting a week from counseling did not appear to "impede" their progress). Guice (1969) found no significant differences in reading test scores between students in reading improvement programs who had regularly practiced with cloze exercises and those who had not.

Phillips (1970, 1970) found that neither the control nor any of the three instructional approaches (teacher guided, individualized, and audio-visual) used in a reading and study skills program with groups of disadvantaged black college freshmen appeared to be significantly more effective for improving level and speed of comprehension (*Davis Reading Test*), with the individualized approach being found most effective for positive modification of study habits and attitudes (SSHA). Whitehill and Rubin (1971) found that experimental groups of graduate and undergraduate University of Wisconsin students in free, voluntary, developmental reading courses who used instrument instruction (with paperback books) had significantly higher words-per-minute rate gain scores than did a control group which had received "traditional" instruction. No significant main effects were found on the *Eyzenck Personality Inventory* for the intraversion-extraversion dimension.

Adult Programs

Programs with non-college adults were involved in several other reports also. No real evaluation of the University of British Columbia continuing education center program for community adults was reported by Ahrendt (1971); but he did state that there had been only a five percent dropout rate over a three-year period (no refunds of fee after the second meeting); and responses to the program had been interpreted as indicating "that adults want to become efficient readers and will work to achieve this goal [p. 10]." Brooks (1970) described the origin, in 1968, and growth of classes for adults in remedial writing and reading in England and methods used and some problems encountered. He stated that the effects of the program were "impossible to measure" but that tests which were given at six-months intervals indicated "a shift of a few points in an upward direction; and that the classes seemed to have had the effect of helping many to advance socially, and also at their work [p. 155]." Inmates in two Ohio penitentiaries who used programmed textbooks in adult basic education courses were found by Carson (1971) to be able to show definite gains in reading vocabulary, comprehension, and total scores (ABE), at both easy and difficult levels. Fant's (1970) comparison group of Atlanta adult program participants who had received twelve weeks of training to improve reading skills with a Communications Skills Laboratory made significant gains in word meaning and paragraph meaning (Stanford) scores, while an experimental group who had received training with O. K. Moore's Talking Typewriter made significant gains only in paragraph meaning scores, with a comparison group having made significantly greater gains. McDaniels report (1971) of the 1970 summer work-study programs for approximately 1,200 National Youth Corps members in California colleges was not intended to be evaluatory; but he did report various indications of success, including administrators unanimously considering the programs successfful, participants having been predominantly positive in reactions, low dropout rates, and incomplete reports of C-plus grade-point averages during the following year in high school. Railsback (1970) presented a description of the Gary Job Corps Center program in San Marcos, Texas.

Warsh's follow-up study (1970) of behavior modifications in adults who had successfully completed a Michigan adult literacy training program between 1962 and 1966 revealed most could read at least as well as when they had completed the literacy-program, large numbers had continued to grow in reading and had been reading regularly, over 80 percent were involved in some form of organized activities (mainly education), and voting habits had changed.

Bryant, Bryant, Christiansen, and Fischer (1971) found a group of St. Paul basic education adults read significantly faster (115 versus 129 WPM) and with significantly higher (60 to 70 percent) comprehension (WRAT) when they read an SRA card while listening to a taped version than when they read another SRA card silently only. Cass (1970) discussed some main findings in a detailed analysis of teaching literacy skills to illiterate adults (below third-grade reading level) through, and proposed recommendations for more effective use of, Operation Alphabet.

Carpenter's study (1971) of adult literacy programs in Turkey revealed that negative self-image characterized program participants (but not nonparticipants); participation effected major attitude changes in participants; and participants became more active public media consumers, otbained new work experiences, and traveled more frequently and extensively. Opinions and attitudes otbained by Wali (1970) of Iraq learners who had participated in literacy programs using traditional verbal methods and those who had participated in alternative programs which included audio-visual techniques and vocational training revealed no differences in learners' choice of method, highly significant teacher preferences for audio-visual, and highly significant differences of learners' choices of literacy over vocational when presented individually.

Among findings obtained by Martinez (1971) in a questionnaire study of New York English programs for Puerto Ricans were that only 2 of 5 English programs used specific testing instruments, only 20% of teachers responding were native Spanish speakers, less than half of the teachers responding had taken a college course directly related to teaching English as a foreign or second language or to linguistics, and the audio-lingual method was reported as a preferred method by 57 to 75% of responding teachers.

In a study of effectiveness of remedial Algebra (not reading) programs in an Alabama junior college, Beck (1971) found no significant difference in course achievement between lecture discussion and multimethod groups; he did find the two groups significantly higher in course achievement than a programmed instruction group and large-group instruction as effective as small-group.

FACTORS INFLUENCING READING AND OTHER STUDY HABITS AND SKILLS

Instructional Variables

Among factors which appeared to Barrett (1970) to have promoted higher grades in first college English courses for University of Arkansas students were having been taught by teachers who were more highly qualified, with more favorable work loads, and having had appreciable writing experiences during the year prior to college English. Mallory (1970) found no significant differences in *Davis Reading Test* scores among groups for whom practice was provided under various conditions, involving two reading comprehension sub-skills (extracting and processing information) under two learning conditions (independent and supervised study). Pace (1971), after studying five teaching programs for teaching four severely retarded adults to read a set of four three-letter words, concluded that a "no-error rate" program was undesirable. Palmatier (1971) described a study in which the easiest of four note-taking procedures used with students was as effective for learning and achievement as were the other three methods.

Tobias and Abramson (1971) reported that, in a study involving programmed instruction, groups of City College of New York paid educational psychology students who used a reinforced constructed response mode on difficult technical material achieved more than did a group assigned to a reading condition with responses filled in, with anxiety effects noted on easy material but not on complex, technical content. Todd and Clemson (1971) studied the influences of meaningful material on recall by comparing the three response modes of reading (covert response), underlining, and note-taking (overt response) over three levels of difficulty (different lengths of a story) with University of Nebraska introductory psychology course students of high and low reading ability. They found consistent differences favoring better readers, and some differences favoring females, with regard to number of words, idea units, eight-word sequences, and identical words recalled, but few differences for difficulty level or response mode.

Test results otbained by Crewe (1969) with groups studying text material under differing review conditions indicated that retention could be increased by review and by studying close to examination time, indicating that cramming was effective when small amounts of study of material were involved. R. P. Williams (1970), after having University of New Mexico freshmen in reading and study courses select SRA Reading Lab cards and answer questions both before and after reading card selections, and finding a number of subjects could answer a considerable portion before reading selections, concluded that different amounts of comprehension were brought to the printed page by different subjects and that, unless severe comprehension blocks or problems existed, comprehension of subjects would increase from reading.

Mueller (1969) reported that an experimental group of 170 second-semester college French students, who had received both audio and visual confirmation of oral responses, scored significantly higher on writing tests than did a control group who had received only audio confirmation. Parent (1970) found Intermediate French students read

French selections with greater comprehension when they use parallel column, bilingual French-English reading material then when they use all-French reading materials; but use of a Language Laboratory, where students could hear French selections read, did not appear to enhance comprehension of French materials read. Findings obtained by Furbee (1971), in a study of writing skills of University of West Virginia freshman, indicated that drill and repetition types of instruction tended to result in less, rather than more, complex writing.

General Semantic/Grammatic/Syntactic Factors

Begg (1971) concluded, after an experiment in which 16 volunteer female Canadian University students were asked to judge both meaning and wording of several hundred auditorially and visually presented sentences, that memory for meaning and memory for wording of concrete sentences were independent. Cohen (1970) found that when 12 paid volunteer graduate and undergraduate subjects cancelled visual targets (letters, phonemes, or words of a specific category) as they read prose passages semantic searching added little or no extra time when combined with visual (letter) or acoustic (phoneme) searching.

Forster (1970), in a series of experiments in which word sequences of varying syntactic arrangement and complexity were presented rapidly to paid volunteer undergraduate subjects, found that sentences containing only one underlying sentence were more accurately reported and concluded that perception was affected by sentence complexity only when the time available for sentence analysis was drastically limited. Foss (1970) found action time for noticing occurrences of a particular phoneme in a sentence longer for introductory psychology class undergraduate subjects when sentences were ambiguous, lexical ambiguities discovered more rapidly by students than structural ambiguities for groups required to notice both phonemes and ambiguities, and reaction time to monitor phonemes longer for ambiguous sentences when subjects themselves classified the ambiguity. When Johnson (1971) had University of Georgia Air Force ROTC students read passages of incremented difficulty and take cloze tests, he found a significant effect of passage difficulty on cloze scores, reading time, and cloze test time but little effect of punctuation on comprehension. Paivio's (1971) findings in studies in which Canadian University summer school students were exposed to English noun and object nominalizations (such as "growling lions", "raising flowers"), of high and low imagery, indicated positive effects on recall of imagery but not of deep-structured complexity (type of nominalization), with noun imagery alone being the best recall predictor. After having 18 volunteer undergraduate students read passages under one of six conditions of oral and silent reading and punctuation, and then read cloze tests over passages aloud, Weaver, Holmes and Reynolds (1970) found diffreent levels of difficulty producing different results on cloze and latency tasks but differing from earlier Bormuth findings. Reynolds and Lundrum (1970) reported a study involving step-wise analysis of word association data.

Groups of University of Texas introductory psychology course students were reported by Foss and Cairns (1970) to have learned complex sentences relatively less well than simple sentences as word lists also learned increased in length, with further indications that interruption of learning the word list was the important variable. When Kaplan and Cawellas (1971) presented introductory psychology students at Hofstra University with a sample of content ranging from 0 to 40 words, with one word deleted in each sample, and gave them 15 minutes to list all words which might be the deleted word, they found that as content increased the proportion of total words recallable increased, but the number of words which could fit the context decreased. Results otbained on a test with 60 sentences, given to 90 sophomores and juniors in a college course on reading instruction by Tuinman and Hafner (1971), indicated that position of adjectives (before and after noun) did not have significant effects on cloze test performance; but method of measurement (reading intact sentences before doing cloze test versus doing cloze test without pre-reading) did have a significant effect. Factor analysis of four grammatical and three word-length categories, which comprised the types of words deleted from a passage from which cloze scores of upperclass education students were obtained by Rentel and Kennedy (1970), found two different factors emerging, a long-word and a short-word factor. In a study of effect of sentence length and grammatical structure on repeatability of English sentences by native and foreign speakers, Stieglitz (1971) found influences of syntactic structure as well as of number of words, with substitutions comprising the greatest percentage of errors in eight-word, and omissions the greatest percentage in eleven-word, sentences.

Lawrence (1971a) found that subjects' (supposedly college students) estimates of words seen in a sequence of tachistoscopically presented words decreased with increased presentation rates, as did also number of words correctly recalled. Lawrence also found (1971b) that when subjects searched word lists for target words, under conditions of various rates of tachistoscopic presentation, such words were readily identified at all rates when the target word was the last one in a list; but when it was the first one, or imbedded in the list, accuracy of recognition was an inverse function of presentation rate. Subjects also did significantly better when target words were identified with a category then when non-categorical. McEwen and Greenberg (1970) found that when groups of Michigan State University students in an introductory communications course read either "high" or "low" intensity versions of a message on teethbrushing practice, the high intensity messages tended to be regarded as clearer and more logical and sources to be more trustworthy, qualified, and dynamic.

In a series of investigations of retroactive interference with prose-learning tasks (200-plus-word passages), in which changes of segments of original passages were interpolated, Crouse (1971) considered a major finding to be that retroactive inhibition was influenced by interpassage similarity and by more than passage differentiation. Paivio and O'Neill (1970), in a series of experiments involving tachistoscopic presentation of stimulus nouns to ten Canadian undergraduate students in introductory classes, found frequency (Thorndike and Lorge) and familiarity had strongest influence on visual recognition ease while the image-evoking characteristic was unrelated. May and Tryk (1970) found rare words were recalled more frequently than common words when a mixed list of alternately common and rare words was presented, which was the reverse of the typical high-frequency-easier-recall effect. Loewenthal (1971), in word association experiments with University of North Wales undergraduates, involving twenty seven-letter nouns from the Thorndike-Lorge word list, found equally ready recognition of "known" and "familiar" words which were tachistoscopically presented, with known words eliciting semantically related, and "familiar" words phonologically related or mediated, responses; similar, but to a lesser degree, findings were obtained for "unknown" words.

Personal/Personality Factors

Remedial English students in Beyer and Oetting's experimental group (1970), who were given initial encouragement and reassurance about their potential achievement, did not differ significantly from a control group in grades in smaller classes; but in larger classes their grades were significantly lower, leading to the conjecture that positive encouragement effected lower anxiety, which led to poorer performance. Stable introverts (Eysenck Personality Inventory) among groups of British technical college students were found by Cowell and Entwistle (1971) to have better study habits (Brown-Holtzman) but not significantly better examination results, than a group of extroverts. Various SSHA subscale scores were significantly related to academic achievement, but in contrasting personality pattern relationships. Defrain (1971) found that none of the California Test of Personality subscale scores of students who completed an Oklahoma State University reading program were significantly different from those who had dropped out of the program. Englander "self-concept as a reader" and "self-concept as a student' 'scores were significantly different for two male and two female groups, respectively.

In a study undertaken by Jamieson (1970) with ten Catholic and ten non-Catholic New Zealand teachers college students, who were presented with controversial religious material, the hypothesis that possible pro-statements and implausible anti-statements would be learned more easily than opposite types was confirmed for pro-Catholic, but not for anti-Catholic, subjects. Analysis of various scores obtained on Wayne State University marginal admission students ,by Pepper and Drexler (1971), indicated that students who felt an "internal locus of control" tended to report better study habits and attitudes than those who felt an external locus, showed negative relationship betwen locus of control scores and SSHA Scores, and revealed an interaction between locus of control and instructional method used in a reading program. W. A. Smith (1971) found no relationship between Personality Assessment Systems scores of University of Missouri rapid reading course participants and enrollment, attrition, or other characteristics; but he did find indications of relatve influence of teaching styles of instructors.

When words representing the subjects' highest and lowest value areas (Allport-Vernon-Lindzey) were presented stereoscopically to fifteen Brooklyn college introductory psychology class students, Gaertner and Seidenberg (1971) found that students generally recognized words of idiosyncratic familiarity. Gelso, Osterhause, and Bodden (1971), studying results obtained after administering various scales to University of Maryland students in an educational skills course and grade-point improvement, concluded that the extent to which students profit from skills improvement courses is dependent on the student's pre-course level of performance. Weigel (1971), using a laterality test and devised mirror-writing and mirror-reading tests with 22 college students, concluded that the three characteristics were related, with the strongest relationship appearing to be between ambilaterality and mirror-writing.

In a study of the impact of editorial satire directed against a person (Art Buchwald editorial columns regarding President Nixon and Vice-President Agnew), carried on with 156 University of Georgia beginning speech course students, Gruner (1971) found negligible effects on character and authoritativeness ratings and by humorousness/lightness ratings. When experimental groups of Illinois State University students in a beginning speech course were exposed to either a reward-oriented or punishment-oriented message (emphasizing benefits or losses derived in education, medical research, air and water pollution control or space program appropriations), McCroskey and Wright (1971) did not find differential effects of type of approach on either attitude change or perceived credibility; but they did find considerable attitude change effected by high-credible, but not low-credible, sources.

Media/Graphic/Visual Factors

When Anderson (1969) presented each of four concepts to approximately 1,600 undergraduate speech class students in various groups in pictorial, written, or spoken media, or one of the various combinations, he found that single-medium presentation elicited greater strong connotative associations than did multi-media presentation; and he concluded that media which use the same sign types competed with one another when combining in multi-media presentations. In a Dwyer study (1971c), involving 261 college students and four different types of black and white and colored illustrations accompanying a taped presentation on the human heart, the different types of accompanying visuals failed to facilitate terminology and comprehension test achievement; but performance on a drawing test and on a total criterial test were favorably affected. However, the types of visuals students judged being most effective for them were not always the ones actually found to be the most effective. In a study involving presentaiton of a reading test in four different type faces, and multiple-choice item options presented either "across" or "down", evidence obtained by Follman, Lowe, and Miller (1970) indicated that neither type face nor item options significantly affected the test performance. In another study (which was related to but not directly involved with, reading) Follman, Lowe and Miller (1971) found that type face did not significantly affect grades awarded to themes of upperclass educational psychology students.

General Readability and Retention Factors

In an "empirical, quasi-experimental" investigation of effects on a lay audience of textual variables in science articles written by a number of different writers, Funkhouser and Maccoby (1971) found strong influences of readability and use of example but did not find the typical differences between sexes in reading enjoyment or between science majors and non-majors in understanding of content; considerable variation was found among professional science writers of the effects of their writings on lay audiences. Newsome and Gaite (1971) found no significant differences in immediate retention between groups of students who had read a 2300-word science fiction selection and a group who had read a 300-word passage based on information retained over one week by subjects who had read a longer selection; but delayed retention (one week) was significantly better for shorter passages than for longer ones. Hardyck and Pertrinovich (1970), in a study carried on with 18 freshmen remedial English students who had muscle actions while reading recorded (electromyograms) and who were required (according to group placement) to keep laryngeal or forearm flexor muscle action relaxed, found the laryngeal feedback group doing less well on comprehension of difficult material than did the other groups. Weaver, Kingston, Bickley, and White (1969) found best predictors of reading comprehension (*Davis Reading Test*) and post-cloze scores of 53 psychology class sophomores to be *Modern Language Association Test* subtests which required subjects to learn previously unfamiliar material by rote. Smith and McCombs (1971) found that, while improved reading ease (Flesch) increased preference for a news story, increased white space appeared to make for more differences in appeal for story; but comprehension of content was not affected by different versions.

Mathemagenics

Performance of undergraduate educational psychology students in Frase and Silbiger's study (1970), in which four experimental groups were asked to search passages for specific information, indicated that as subjects search for information they establish criteria for discerning relationships among separate sentences, both for sentences which identify specific information and for those which must be used to reject relevant information. MacGregor (1971) concluded, after a study with "highly self-selective" adult subjects, that position of questions in a reading selection (before, after, or interspersed) was not a significant factor in long retention of learning (six to eight days) and that general reading ability was a more significant variable.

In further reports of Dwyer's studies of effectiveness, on learning of undergraduate college students, of visuals accompanying textual presentation concerning the heart Dwyer (1971b) indicated that questions as advanced organizers in visual instruction (questions preceding each visualized page in instructional booklets) were not effective instructional techniques for achieving various types of objectives involved. In still another report, Dwyer (1971a) indicated that when questions followed textual material presented, visualizaton of content material was not effective as an instructional technique.

In a study concerned with differences and quantity of output (ideational fluency) produced by various modes of input, and involving 140 adult basic education students, Reynolds, Palmentier, and Ulmer (1969) found fluency (writing responses associated with given words) not a function of presentation modes (auditory, visual, graphic, or combinations).

Baldwin and Bailey (1971), in a study to determine influence of a microfilm presentation method on information processing (visual modality) ability, prepared three types of tests for each of four types of Air Force training material and found that Air Force subjects receiving offset copy materials consistently scored significantly higher than did subjects receiving materials via positive image or negative image microfische.

Weigel, Weigel, and Herbert (1971), carrying on an investigation in line with the suggestion that generalizations made in research projects where students were required to participate (as a course requirement) may be legitimate but may not be warranted, let 100 introductory psychology students (from a pool of 1000) sign up for study during the first, middle, and last week of the term. They found differences in students study habits (Brown-Holtzman) which they felt could affect generalizability of research findings.

Factors Influencing Listening

Responses obtained by Bacharach and Kellas (1971) from undergraduate general psychology students fulfilling a course requirement, who were asked to recall, in writing, each of a number of auditorially presented sentences, indicated that recall was a function of phrase structure of the sentence material rather than a function of types of sentences used (active, passive, and manner adverbial). Carey (1971) reported that when students and nurses listened to stories recorded at one, two, and three words per second, shadowers (those who repeated auditory messages aloud as they heard them) had somewhat higher word recognition and semantic retention scores at the slowest rate than did listeners; but at faster rates the difference disappeared. Word recognition scores for shadowers were found related to either semantic retention or syntax recognition. Hakes and Foss (1970) found that when 40 introductory psychology students heard self-embedded sentences they had faster phoneme monitoring time (listening for a word beginning with a given letter) when relative pronouns were present in sentences than when these were deleted. They concluded that a phoneme monitoring technique is a better index of comprehension difficulty than is a paraphrasing technique. Data obtained by Hamilton and Deese (1971) when 30 subjects listened to 288 tape-recorded sentences and rated them as to comprehensibilty indicated that grammatical structure, rather than semantic relationship, is a chief determiner of comprehensibility. Cairns and Foss (1971) found no effective word frequency for nouns or verbs when undergraduate psychology students (required to participate in an experiment as a course requirement) pushed a button when they heard words beginning with a given phoneme among 45 auditorially presented sentences (but some effect was found for low frequency adjectives).

Results obtained by Rossiter (1971) with groups of undergraduate introductory communications course students, who listened to various types of recorded information played at varying speeds, showed interaction effects between speed of presentation and type of information, with significant declines in comprehension of compressed speech at rates below 275 words per minute. In another study, Rossiter (1970) obtained a correlation of .46 between age and listening scores of 30 adults, leading him to conclude that older students might retain less from oral presentations than do younger students.

Sticht (1971) in another of his experiments with time-compressed speech recordings, done with 75 high- and 75 low-aptitude men (*Armed Forces Qualification Test*) found that new material was learned in the time saved by the compression of speech, but not more than that which resulted from listening to uncompressed material. Watts (1971) found no differences between lecture test results for U. S. Air Force groups which had heard lectures in a normal auditorium situation and groups which had heard versions compressed to 250 words per minute; but he did find significant effects relative to rank and to subject matter.

Warren and Obusek (1971) found phonemic restoration (the illusory effect which occurs when a missing speech sound in a sentence is restored by the listener on the basis of prior and subsequent conduct) occurring much less frequently for 100 introductory course Wisconsin students on a silent gap rather than an extraneous sound (such as a cough or tone) replace the missing speech sound. Results obtained by Guthrie (1971) when 90 undergraduate, male, paid subjects were given several types of feedback while learning 39 whole sentences verbatim indicated feedback facilitated learning when it followed wrong, but not when it followed correct, responses; but feedback consisting of both stimulus and response was superior to no feedback; and there were no differences between only-response feedback and no-feedback conditions. In a study involving 26 undergraduate college students (presumably in a psychology class) taking notes on a 160-word taped passage, Howe (1970) found that recall success was considerably dependent on the extent to which recall items were reproduced in notes, with the chances of subsequent recall of items not appearing in notes being very low. Meyer and Miller (1970), in a comparison of listener information retention and attitude evaluation to emphasis (vocal stress and intention of pauses to set off key words and phrases) and non-emphasis versions of a radio newscast, did not find a significant effect of delivery style on recall, although attitude measures tended to show a preference for emphasis delivery.

INFLUENCE OF READING AND STUDY HABITS AND SKILLS

Reactions of subjects in a program carried on with chronic-emotionally-disturbed patients in two Washington state mental hospitals led McClaskey (1971) to conclude that bibliotherapy could be effective in bringing about significant behavioral changes but not significant attitudinal change gains. Experimental evidence obtained by Atkin (1969) with groups of University of Wisconsin undergraduates indicated te effectiveness of exposing voters to opinion poll reports which showed candidates or issues highly favored by a specific electoral population. Questionnaire responses obtained by Brahee (1970), from over 500 adults enrolled in a course at the University of Michigan Adult Extension Center, revealed that respondents relied more extensively on newspapers and magazines for meeting information needs than on television and radio, with further indication that higher as well as lesser educated enrollees used television primarily for entertainment. Results obtained in a study by Hiett (1969) of the effectiveness of gun control advertising, carried on with Southern Illinois University sophomore sociology students, led Hiett to conclude that attitudes toward gun control legislation were little influenced by single exposure to pro-gun control advertisements but that knowledge of gun ownership, size of hometown, and political leaning would be better predictors of attitude.

In a study of 104 male adults in a Candian retraining, or academic upgrading, program, Sainty (1971) found that slightly over half who dropped out had lower intelligence and lower *Gates Reading Survey* scores than the completers, but not lower personality scores. Vraa (1971) found ACT Science Reading and Natural Science Reading scores to be significant variables in the academic success prediction of 101 Canadian male freshmen at the University of North Dakota; the best individual predictor was ACT English scores rather than high school grade-point-average, which was found to be the best predictor in other studies of American students.

Leslie and Calfee (1971) found, in a study carried on with 8 college students from introductory psychology courses as well as 48 elementary children from remedial reading and mathematics classes, that reading ability was not a significant factor in various visual search tasks involving scanning lists of words. Ross (1971) found Cooperative English Reading Speed Comprehension scores not useful in predicting first-semester achievement of University of Akron engineering freshmen. Carbuhn (1970) found reading speed (*Gates Reading Survey*) least significant and overall reading average correlating most highly with aptitude and GED scores of 157 Utah Urban Job Corpsman; and a reading test score of approximately Grade 7 level was found necessary for passing various GED tests. Analysis of test data by Hansome and Taylor (1970), including ACT Reading Test scores obtained for over 400 Minnesota Technology Institute freshmen engineering students, indicated that, while ability (including ACT reading scores) will influence academic success, personality characteristics (Minnesota Counseling Inventory) will influence students withdrawing or remaining in college.

READING AND RELATED HABITS, TRAITS, AND SKILLS

Study Techniques and Habits

Adams (1970) did not find significant differences in the amount of underlining done by students in undergraduate methods textbooks or among amounts done in texts for different areas. Positive, but relatively low, correlations were found between amount of underlining and grades in specific courses, but lower correlations for reading than for social science and science courses. When total amount of study time and time between original study and review was controlled, Hultgren and Crewe (1969) found no significant differences in retention of textbook study material between University of Minnesota student athletes who crammed and those who employed study-review strategies (including underlining). Maxwell (1970 found that advanced students with average reading skills who participated in scanning practice and study were able to improve scanning speeds, develop different strategies for learning the scanning task, and did not show significant differences between scanning speeds and stimulus presentation method (auditory versus visual). Wark (1971b) described a study in which students in a how-to-study course, given a conditioning treatment for relaxation and desensitization for reducing test anxiety, dropped an average of 20 points on an anxiety scale.

Among findings obtained by Sommer (1969) in his interview-visit survey of use of students' rooms for study activities (conducted on eleven university, college and junior college campuses) were that a person with a roommate was more likely to study if the roommate were physically present and studying than when the roommate was out of the room; fewer students in apartments studied at their desks in double and single rooms (40% at desks, 40% on beds—of whom only one half were studying, and remainder on floor or at other locations); no gradepoint differences between those who studied at desks and those who studied on beds; and that the most important study aspect of residence hall rooms for students was the roommate, not the furniture. Santiago (1971) found that Spanish speaking students in Puerto Rican colleges wrote in similar fashion (relative to numbers of paragraphs, sentences, and words) in Spanish as in English essays. Yarington (1970) presented a review of 56 studies, of approximately the last 90 years, of time spent reading and studying by college as well as high school students.

Reading and Verbal Ability Levels and Habits

According to the *Phi Delta Kappan* (1970), survey figures gathered at the request of the National Reading Council indicated that 7% of Americans have difficulty with filling out a Social Security application form, 11% with a personal bank loan form, and 34% with a Medicaid application. Over 4 million Americans are considered functionally illiterate in present society, with functional illiteracy ranging from 4 to 16% for rural and from 2 to 9% for suburban residents. Highest region of illiteracy was in the South (4 to 15%) and next in the East (4 to 14%), with 3 to 13% in Midwestern areas, with fewer reading deficiencies alledgedly found in the West than in other regions. D. A. Brown's (1970) analysis of data, obtained by administering the WAIS to 128 functionally illiterate adults (of whom over 95% were black) enrolled in adult basic education courses in city core areas, indicated that, while the tested groups scored more poorly on the WAIS than literate whites would be expected to, the black disadvantaged group did not show comparatively greater strength on rote learning than on abstract thinking tasks. When Knight and Alcorn (1970) compared the intelligence scores and reading performance scores of 24 adult education program enrollees with elementary subjects roughly matched on the basis of California Reading Test scores, they found stronger relationships between intelligence (IPAT) and reading performance scores for elementary than for adult subjects, with adults performing as well or better on one reading test than on a cloze test and considerably better on another test than elementary subjects. They interpreted results to suggest that adults might be able to utilize reading skills they do possess to a greater extent than standardized test results might indicate.

Dinnan, Bickley, and Cowart (1971) found college students with poor verbal ability (and considered "poor risk") responded with higher syntagmatic responses (all verbal responses which are not "superordinate, coordinate, whole-part or area contrast") on the *C/A Oral Language Inventory* than did students with high verbal ability, Gibson (1971) reported that *Nelson-Denny Reading Test* scores of a sample of 200 California community college students indicated that 65% had poor reading ability, 24% average, and 11% superior, with informal reading inventory results indicating that over half were reading at frustration level. Readability levels of the students' textbooks were found to range from just below mean reading level to approximately four-and-one-half years above the students' mean reading levels. When McClellan (1971) compared reading levels (Nelson-Denny) of Hillsborough Junior College students in four social science area classes and one English class with readability levels (Dale-Chall) of required texts, she found the readability levels significantly higher, with analysis of readability levels of twenty selected texts indicating that less than 30 per cent of students enrolled would be able to read their texts. Questionnaire data otbained by Williams (1970), from over eight-hundred Harrisburg Community College freshmen, revealed only a moderate correlation (.40) between total books read and English and social studies scores (ACT), with over half reporting having read fewer than fifteen to twenty books before college entrance. Half the non-readers reported having no reading difficulty, while about a third of the readers reported difficulty. Electromyographic chin-lip-sight recordings, obtained by Locke (1971), of 6 young adults as they silently read three different passages containing high, medium, or low proportions of words whose pronunciation required labial motor gestures (*p, b, m, w, f, v*) indicated significantly higher tracings for high- than for low-labial passages, suggesting that covert oral activity during silent reading is a measurable form of speech.

Use of Reading and other Media

Personal interview data obtained by Block (1970) from three-hundred-fifty St. Louis inner-city-poor subjects revealed that mass media do reach the poor, particularly television and newspapers, with over 70% of respondents indicating they viewed TV regularly and slightly less claiming they read or at least looked at a newspaper almost daily. Kline's (1971) use of a path analysis technique, in efforts to find the extent of influence of life style and demographic factors on extent of media use, revealed TV taking up 29 hours per week of time spent by a sample of urban and suburban mothers and fathers, radio 25 hours per week, newspapers 11 hours, magazines and books 7 and 6 hours, respectively, with education correlating negatively with newspaper reading. Among questionnaire findings obtained by Dulin and Otto (1970) from evening reading improvement course enrollees were that "fiction' 'and "technical" were types of books most often read; a daily average of approximately 32 minutes was reported as being spent reading newspapers; meeting leisure reading needs, reading needs of current jobs, and reading needs for future intended schooling were cited as major reasons for desiring to improve reading skills, with nearly all feeling that reading speeds could be increased over four-hundred words per minute by average readers. Rogers (1970) found "leaders" among a group of former Soviet residents indicating they would read a higher proportion of editorials, analyses, and letters in leading Russian newspapers (*Pravda* and *Izretia*) than did "nonleaders", similar to Western Soviet scholars.

Teacher and Other Adult Strategies and Attitudes

Browning (1971) found no significant differences in increase of knowledge of phonics generalizations among groups of college students enrolled in courses in reading and language arts who were exposed to one of three two-week treatments (individualized audio-visual, combination of individualized audio-visual and lecture, and lecture only). Illika (1970, 1971) has presented results of another of his surveys of phonic skills of teachers and reported finding no significant differences among groups of graduate students who were teachers, undergraduate elementary educations students, and undergraduate speech and speech therapy students. Samuels and Chen (1971), exposing 25 elementary children and 25 college students to various word pairs and speed of word recognition and word recognition strategies tests, found adults superior with every strategy used.

Smith, Hesse, and Otto (1970), in a continuation of earlier reported work on an inventory of teachers attitudes, found junior high English teachers expressing most positive, and science teachers least positive, attitudes toward teaching reading in their content area classes. Questionnaire responses obtained by Otto and Dulin (1970) from approximately one-third of the 237 National Reading Conference members polled, concerning status-ranking of various professional activities, indicated relatively little differences between "large university" and "others", "research" and "no research", and "teacher preparation" and "reading service" groups, with journal research reports, writing professional books, and leadership in national level organizations tending to carry major status.

The answer to what college students are reading currently is (according to *Parade*) "comic books", with national best sellers including "The Mighty Avengers", "The Incredible Hulk", "The Fantastic Four", and "The Amazing Spiderman" (Swift, 1971). While still featuring super-heroes whose survival is accomplished by supernatural intervention, the comic books, reportedly, "have been transformed from the purely 'escape literature' of Flash Gordon to a relevant new and interesting art form", "even social commentary", and "have become so papular that they run the risk of acceptance by the Establishment [Swift, 1971, p. 10]."

MISCELLANEOUS

Tests and Measuring Procedures

Carver and Darby (1971) described the revision and construction of two forms of the chunked type of tests developed and analyzed earlier by Carver (designed to show informatiaon stored during reading). They reported that administration of the test to groups of paid college students yielded results which indicated that the test was a valid measure of differences in information stored between readers and nonreaders of passages. Farr and Smith (1970) discussed a procedure for assessing test items and the effect of specific items on test validity and reliability. Results obtained did not sustain the hypothesis that dropping four items from the *Nelson-Denny Reading Test* would increase test reliability and validity. Grotelueschen and McQuarsie (1970) concluded, on the basis of correlations obtained between scores of 178 adults on the *Quick Word Test* and WAIS scores obtained two years earlier, that the QWT was a valid test for measuring adult mental ability. A further report of Follman's analysis of three critical thinking tests, reported at an earlier conference, was also presented (Follman, Miller, and Burg, 1971).

Rankin and Hess (1970) presented a method for determining internal (intraarticle) reading flexibity which involved obtaining relative reading rates along with determining relative difficulty of successive small portions of passages. Trial of the procedure yielded "flexibility quotients" which indicated relative inflexibility and which gave some reason to question validity of sub-group flexibility coefficents. Taschow (1971) has presented results of further study of reading gains, those measured by the conventional crude gain method versus those measured by the residual gain method, which indicated that crude gain measurement tends to underestimate as well as overestimate individual differences in reading improvement and that residual gain procedures tend to eliminate overestimates of the inferior improvers and underestimates of the superior improvers. Using college introductory communications course students as judges, Sachsman (1970) explored a method for analysis of "loading" with regard to referents in headlines, stories, and combinations. All six Bay area newspapers involved were judged as showing significant bias, with "pro" loadings for President Nixon as a referent and "con" loadings towards Arab Commandos, offshore oil companies, University of California (Berkeley) demonstrators, and considerable lack of agreement among judges with regard to striking teachers and state college trustees. McLeod and Anderson (1970) described a series of experiments, which utilized both adults and children. and mathematical derivations which lead to an "uncertainty reduction index" (URI), which purportedly could be regarded as a valid and reliable expression of reading ability of subjects. Askov (1970) discussed the revision of a survey of teacher attitudes toward individualized reading instruction and suggested the instrument might be useful despite extraneous influence of survey administrators or uncertain interpretation of scores. Blake (1971), in a study conducted with undergraduate history students and cloze procedures, found agreement scores (ratio of amount of agreement among responses to a completion item to the greatest amount of agreement possible) more sensitive to differences in contextual strength than were cloze scores.

In a series of studies involving measurement of pupil dilation of college subjects while reading or listening to selections of various difficulty levels, Carver (1971) found mean reading time increased with difficulty; but he did not find that pupils of students dilated while reading or while listening to aurally presented connected discourse. Kanungo and Dutta (1971) have described their perceptual framework for communicative meaning of words and their development of the Semantic Consensus Index (SCI), a technique for measuring relationships of communicative meaning of words with such other meaning attributes as imagery concreteness, meaningfulness, dictionary meaning, and intensity of affective meaning. Lynch (1970) reported evaluation study of an Index of Syntactic Dispersion (ISD), a method of stylistic analysis or "a measure of the variance in strings of three parts of speech." Mickleson (1971) presented a table of "meaningfulness," based on data from groups of fourteen-year-old Canadian children and Canadian adults, for 120 nouns.

Magazines and Newspapers

Application of the Flesch readability formula to lead articles in issues of leading popular magazines (*Reader's Digest, Saturday Evening Post, Ladies Home Journal, Harper's,* and *Popular Mechanics*) at five-year intervals, from 1925 to 1965, by Barganz and Dublin (1970) revealed that the articles, from earliest issues on, required at least high school reading level ability, and over half of the articles checked required greater than that. Mujahid's content analysis of coverage of Pakistan in three leading U.S. news magazines (1970) showed the types of stories to have been primarily ones concerned with Pakistan's foreign relations (with meager coverage of domestic matters) and that the reportage in the magazines was, in general, factual, balanced, and objective. Stempel (1971) found significantly less percentage of news pictures with only whites in 1970 issues of five leading U.S. news-picture magazines than in 1960 issues and a significantly greater percentage of whites-only pictures for advertising than for news pictures. Geizer's comparison (1971) of advertisements in 1960 issues of *Ebony* and *Life* with those in 1969 issues indicated significantly lower frequency of light-skinned-black model and of white-only model advertisements, significantly greater frequency of dark-skinned-black model and of mixed model advertisements, and no significant changes in use of "black" rather than "Negro" or in "black identity" language, leading to the conclusion that drastic identification with black militancy had been rejected by Ebony, a magazine regarded as a leading black mass circulation magazine. Ads with blacks in twelve general circulation magazines studied by Kassarjian (1969) were found to be three times greater in 1969 than in 1964 and in 1965, but blacks still were found in less than 2 percent of the ads.

M. R. Brown (1970) concluded, on the basis of a study in Chile of the effect of mass media content on Chilean farmers' behavior, that "illiteracy, lack of education, and so-called traditional attitude did not constitute impenetrable variables to the flow of technical information [p. 734]." When Cote (1970) compared 37 pairs of stories, he found no differences in accuracy between AP-originated and UPI-originated stories; and he concluded that errors found were due more to reporting mistake sources than to interpretation errors. Exhaustive theme content analysis of editorials and letters in the Bridgeport, Connecticut, *Post* by Spector (1970) indicated that the newspaper had a definite influence on referendum voting and lead to the conclusion that "a newspaper with a reputation for forthright editorializing on local politics will probably be more influential on its readers than those papers which avoid local controversy [p. 766]." Little (1971) has presented figures, based on newsprint consumption, to show that the growth of city newspapers has been in inverse relation to size of populations, ranging from a 41.3% increase in cities of one million or more to 93.2% in cities of less than 100,000.

Materials

Bahe (1970) presented an analysis of college reading manuals or practice materials and a cross-reference listing of materials for various specific reading or study skills areas. Geeslin (1970) field-tested multi-level reading materials with adult basic education classes. Teachers, teacher-trainees, and adult education experts reportedly rated the materials as just as adequate or definitely more adequate than traditional materials.

Eye Movement Studies

Geyer (1970) briefly reported (with detailed evidence and information presented elesewhere) a method for obtaining a coefficient of constancy of the temporal eye-voice span as a measure of overall reading effectiveness. In an experiment involving detailed measurement of eye movements of three subjects while reading three passages of varying difficulty, Smith, Schremeser, and Putz (1971) obtained evidence that the eyes are not "perfectly conjugate" in saccadic motion, that the left eye tends to lead the right eye, and that time difference was not related to difficulty of materials but that change in horizonal rotation of reading display was. Singer (1970) found, when groups of New Mexico State University students were tested with the *Cooperative English Test* under one of three conditions, that when reading was paired with listening, subjects made more regressions, had smaller recognition spans and longer durations of fixations, and reading rate was decreased (as it was also with silent reading).

Other

Meehan (1971), studying groups of senior language arts methods students who were given instruction on question fluency by traditional approaches, by critical reading with emphasis on affetcive dimensions, or by critical reading with emphasis on cognitive dimensons, found no significant differences among the groups with regard to cognitive-memory or critical-type questions used in teaching groups of children. Tichenor, Olien, Harrison, and Donohue (1970) found communication accuracy (as judged by respondents immediate recall statements of what they had read) for 73 science articles pulled from midwest metropolitan newspapers to range from 30% to 91%, with an average of 65%, with accuracy being higher for editor- assigned articles than for those originating with public meetings or on a reporter's own initiative. Mustico (1971) presented some implications for reading readiness on the basis of responses of college sophomores in educational psychology classes and students in Grades 3, 6, 9, and 12 to sets of three-letter trigrams. Of 39 variables studied by Yang (1971) in developing a readability formula for the Chinese language, highest predictive power was found for, in order, proportion of "simple" (in list of 5600) words, average number of strokes per character, and proportion of complete sentences.

REFERENCES

Adams, E. K. Underlining: the graphical aid to college reading. Schick & May (1970a, 12-22).

Ahrendt, K. M. An adult reading improvement program. *Reading Improvement,* Spring 1971, *8,* 7-10.

Askov, E. N. Assessing teachers' attitudes toward individualizing reading instruction. In Schick & May (1970a, 23-28).

Atkin, C. K. The impact of political poll reports on candidate and issue preferences. *Journalism Quarterly,* Autumn 1969, *46,* 515-521.

Anderson, J. A. Single-channel and multi-channel messages: a comparison of connotative meaning. *Audio-Visual Communication Review,* Winter 1969, *17,* 428-434.

Bacharach, V. R., & Kellas, G. Phrase versus base structure effects on short-term retention. *Journal of Verbal Learning and Verbal Behavior,* April 1971, *10,* 171-175.

Bahe, V. R. A content analysis of current college reading manuals. In Schick & May (1970b, 11-25).

Baldwin, T. S., & Bailey, L. J. Readability of technical training materials presented on microfische versus offset copy. *Journal of Applied Psychology,* Feb. 1971, *55,* 37-41.

Barganz, J. C., & Dulin, K. L. Readability levels of selected mass magazines from 1925 to 1965. In Schick & May (1970b, 26-30).

Barrett, C. J. The influence of high school senior english teachers and the senior courses in high school english on students' performance in freshman composition at the University of Arkansas. (Doctoral dissertation, University of Arkansas, 1970.) *Dissertation Abstracts International,* Sept. 1970, *31,* 919A. Ann Arbor: University Microfilms, Order No. 70-17, 173.

Beck, M. C. A comparative analysis of three methods of teaching remedial algebra on the junior college level. (Doctoral dissertation, Auburn University, 1970.) *Dissertation Abstracts International,* June 1971, *31,* 6270A. Ann Arbor: University Microfilms, Order No. 71-13, 196.

Begg, I. Recognition memory for sentence meaning and wording. *Journal of Verbal Learning and Verbal Behavior,* April 1971, *10,* 176-181.

Berger, A. A comparative study of reading improvement programs in industry and education int he United States and Canada. In Schick & May (1970a, 29-33). Also in Wark (1917a, 14-37).

Beyer, H. N., & Oetting, E. R. Effect of encouragement and reassurance on students' performance in remedial english. *Journal of Educational Research,* Oct. 1970, *64,* 59-60.

Blake, J. H. Cloze scores, agreement scores, and approximate equivalence scores as indices of contextual constraint. (Doctoral dissertation, Syracuse University, 1970.) *Dissertation Abstracts International,* May 1971, *31,* 5923A. Ann Arbor: University Microfilms, Order No. 71-10, 892.

Blevins, M. L. A comparative study of three methods of instruction in vocabulary on achievement of students in the adult institute. (Doctoral dissertation, Oklahoma State University, 1970.) *Dissertation Abstracts International,* April 1971, *31,* 5108A. Ann Arbor: University Microfilms, Order No. 71-11, 105.

Bliesmer, E. P. 1969 review of research on college-adult reading. In Schick and May (1970a, 46-78).

Bliesmer, E. P. 1970 review of research on college-adult reading. In Greene (1971, 361-389).

Block, C. E. Communicating with the urban poor: an exploratory inquiry. *Journalism Quarterly,* Spring 1970, *47,* 3-11.

Brahee, C. I. A study of mass communications influence upon the adult learner—implications for programming. (Doctoral dissertation, University of Michigan, 1969). *Dissertation Abstracts International*, Aug. 1970, *31*, 601A-602A. Ann Arbor University Microfilms, Order No. 70-14, 482.

Brooks, R. B. Remedial education in Surrey. *Adult Education* (London), Sept. 1970, *43*, 150-156.

Brown, D. A. Intelligence of Adult Illiterates. In Schick and May (1970a, 94-98).

Brown, M. R. Communication and agricultural development. *Journalism Quarterly*, Winter 1970, *47*, 725-734.

Brown, W. F., Wehe, N. O., Zeinker, V. G., & Haslam, W. L. Effectiveness of student-to-student counseling on the academic adjustment of potential college dropouts. *Journal of Educational Psychology*, Aug. 1971, *62*, 285-289.

Browning, M. E. P. An analysis of different learning strategies for the achievement of phonics generalizations. (Doctoral dissertation, Auburn Univesrity, 1970). *Dissertation Abstracts International*, April 1971, *31*, 5242A. Ann Arbor: University Microfilms, Order No. 71-9036.

Bryant, A. S., Bryant, B. F., Christiansen, D., & Fischer, L. The effectiveness of taped reading instruction in increasing the reading rate and comprehension of under-educated adults. *Adult Education*, Summer 1971, *21*, 246-252.

Cairns, H. S., & Foss, D. J. Falsification of the hypothesis that word frequency is a unified variable in sentence processing. *Journal of Verbal Learning and Verbal Behavior*, Feb. 1971, *10*, 41-43.

Caple, R. B. Group study of low-achieving freshman males in a residence hall setting. *Journal of College Student Personnel*, May 1969, *10*.

Carbuhn, W. M. Predicting general educational, development (GED) test performance of urban job corpsmen. *Educational and Psychological Measurement*, Winter 1970, *30*, 993-998.

Carey, P. W. Verbal retention after shadowing and after listening. *Perception and Psychophysics*, Feb. 1971, *9*, 79-83.

Carpenter, H. F. Adult education and the transformation of rural society in Turkey. (Doctoral dissertation, Stanford University, 1970.) *Dissertation Abstracts International*, May 1971, *31*, 5925A-5926A. Ann Arbor: University Microfilms, Order No. 71-12, 871.

Carson, J. E. The effects of programmed instruction as a supplementary teaching aid in adult basic education at the Ohio State Reformatory. (Doctoral dissertation, Ohio State University, 1970.) *Dissertation Abstracts International*, Mar. 1971, *31*, 4441A. Ann Arbor: University Microfilms, Order No. 71-6951.

Cartwright, H. D. Study skills for the severely retarded college reader. In Schick and May (1970b, 50-57).

Carver, R. P. Pupil dilation and its relationship to information processing during reading and listening. *Journal of Applied Psychology*, Apr. 1971, *55*, 126-134.

Carver, R. P., & Darby, C. A. Jr. Development and evaluation of a test of information storage during reading. *Journal of Educational Measurement*, Spring 1971, *8*, 33-44.

Cass, A. W. The role of television in reaching illiterate adults with a literacy program series. (Doctoral dissertation, Columbia University, 1969.) *Dissertation Abstracts International*, Aug. 1970, *31*, 602A. Ann Arbor: University Microfilms, Order No. 70-12, 544.

Christ, F. L. A pre-college summer reading/study skills lab. In Schick and May (1970b, 58-64).

Christ, F. L. (Ed.), *Interdisciplinary aspects of reading instruction*. Western College Reading Association 4th Yearbook. Los Angeles: the Association, 1971.

Cohen, G. Search times for combinations of visual, phonemic, and semantic targets in reading prose. *Perception and Psychophysics*, Nov. 1970, *8*, 370-372.

Cote, J. R. A study of accuracy of two wire services. *Journalism Quarterly*, Winter 1970, *47*, 661-666.

Cowell, M. D., & Entwistle, N. J. The relationships between personality, study attitudes, and academic performance in a technical college. *British Journal of Educational Psychology*, Feb. 1971, *41*, 85-90.

Crewe, J. C. The effect of study strategies on the retention of college text material. *Journal of Reading Behavior*, Spring 1969, *1*, 42-45.

Crouse, J. H. Retroactive interference in reading prose materials. *Journal of Educational Psychology*, Feb. 1971, *62*, 39-44.

Curry, R. L., & Roberts, B. H. A comparison of four practice schedules in college developmental reading classes. In Schick and May (1970b, 65-70).

Dare, L. J. A study of remedial programs in public two-year colleges. (Doctoral dissertation, University of North Carolina at Chapel Hill, 1970.) *Dissertation Abstracts International*, Feb. 1971, *31*, 3896A. Ann Arbor: University Microfilms, Order No. 71-3549.

Defrain, D. M. The effects of self-concept and selected personal and educational variables upon attrition in a non-credit college reading improvement program. (Doctoral dissertation, Oklahoma State University, 1970.) *Dissertation Abstracts International*, Apr. 1971, *31*, 5195A. Ann Arbor: University Microfilms, Order No. 71-11, 131.

Dinnan, J. A., Bickley, R. T., & Cowart, H. Syntagmatic oral responses and SAT scores of college freshmen. In Greene, (1971, 17-19).

DiSalvi, R. D. An investigation of the relationship between a study techniques and and reading improvement program and the academic performance of undergraduate evening students. (Doctoral dissertation, University of Pennsylvania, 1970.) *Dissertation Abstracts International*, Nov. 1970, *31*, 2174A. Ann Arbor: University Microfilms, Order No. 70-22, 871.

DiSalvi, R. D. A remedial programs for undergraduate evening students. *Adult Education*, Spring 1971, *21*, 189-195.

Dulin, K. L., & Otto, W. Backgrounds, felt educational needs, and expectations of adults seeking advanced training in reading. In Schick and May (1970a, 116-121).

Dwyer, F. M. Effect of questions on visualized instruction. *Journal of Psychology*, July 1971, *78*, 181-183.

Dwyer, F. M. Questions as advanced organizers in visualized instruction. *Journal of Psychology*, July 1971, *78*, 261-264.

Dwyer, F. M. Student perceptions of the instructional effectiveness of black and white and colored illustrations. *Journal of Experimental Education*, Fall 1971, *40*, 28-34.

Ewing, J. B. The role of the skills instructor in the college reading improvement program. In Schick and May (1970b, 71-75).

Fant, B. J. The "talking typewriter" in a program for the adult disadvantaged. (Doctoral dissertation, University of Florida, 1969.) *Dissertation Abstracts International*, Nov. 1970, *31*, 2000A. Ann Arbor: Universtiy Microfilms, Order No. 70-20, 751.

Farr, R., & Smith, C. B. The effects of test item validity on total test reliability and validity. In Schick and May (1970a, 122-134).

Florak, E. L. Changes in selected variables resulting from group counseling in a developmental reading course. (Doctoral dissertation, University of Pittsburgh, 1970.) *Dissertation Abstracts International*, Apr. 1971, *31*, 5123A. Ann Arbor: University Microfilms, Order No. 71-8773.

Follman, J., Lowe, A. J., & Miller W. Typeface and multiple option format. In Schick and May (1970a, 135-140).

Follman, J., Lowe, A. J., & Miller, W. Graphics variables and reliability and level of essay grages. *American Educational Research Journal*, Mar. 1971, *8*, 365-374.

Follman, J., Miller, W., & Burg, E. Statistical analysis of three critical thinking tests. *Educational Psychological Measurement*, Summer 1971, *31*, 519-520.

Forster, K. I. Visual perception of rapidly presented word sequences of varying complexity. *Perception and Psychophysics*, Oct. 1970, *8*, 215-221.

Foss, D. J. Some effects of ambiguity upon sentence comprehension. *Journal of Verbal Learning and Verbal Behavior*, Dec. 1970, *9*, 699-706.

Foss, D. J., & Cairns, H. S. Some effects of memory limitation upon sentence comprehension and recall. *Journal of Verbal Learning and Verbal Behavior*, Oct. 1970, *9*, 541-547.

Franklin, T. J. Survey of diagnostic procedures in university and college reading clinics. (Doctoral dissertation, Oklahoma State University, 1969.) *Dissertation Abstracts International*, Feb. 1971, *31*, 3774A. Ann Arbor: University Microfilms, Order No. 70-21, 391.

Frase, L. T., & Silbiger, F. Some adaptive consequences of searching for information in a text. *American Eduactional Research Journal*, Nov. 1970, *7*, 553-560.

Funkhouser, G. R., & Maccoby, N. Communicating special science information to a lay audience. *Journal of Communication*, Mar. 1971, *21*, 58-71.

Furbee, J. W. Writing complexity of college freshmen. (Doctoral dissertation, West Virginia University, 1970.) *Dissertation Abstracts International*, June 1971, *31*, 6275A-6276A. Ann Arbor: University Microfilms, Order No. 71-15, 470.

Gaertner, S. L., & Seidenberg, B. Familiarity and value effects upon stereoscopic word recognition. *Perceptual and Motor Skills*, June 1971, *32*, 703-708.

Garofalo, V. J. A college reading program. *Journal of the Reading Specialist*, Dec. 1970, *10*, 108-111.

Geeslin, R. H. The field test of a material for teaching reading and the general knowledge area of adult basic education: an experimental and descriptive study. (Doctoral dissertation, Florida State University, 1969.) *Dissertation Abstracts International*, Sept. 1970, *31*, 998A. Ann Arbor: University Microfilms, Order No. 70-16, 327.

Geizer, R. Advertising in Ebony: 1960 and 1969. *Journalism Quarterly*, Spring 1970, *48*, 131-134.

Gelso, C. J., Osterhouse, R., & Bodden, J. L. Nonintellective factors in improvement during an educational skills course. *Journal of Counseling Psychology*, Sept. 1971, *18*, 503-504.

Geyer, J. J. A new eye movement measure of reading efficiency. In Schick and May (1970a, 168-171).

Gibson, W. D. Relationship between difficulty levels of assigned English texts and reading ability of community college students. (Doctoral dissertations, University of Southern California, 1971.) *Dissertation Abstracts International*, June 1971, *31*, 6362A-6363A. Ann Arbor: University Microfilms, Order No. 71-16, 411.

Greene, F. P. (Ed.), *Reading: the right to participate*. National Reading Conference 20th Yearbook. Milwaukee: the Conference, 1971.

Grotelueschen, A., & McQuarrie, D. Cross-validation of the quick word test as an estimator of adult mental ability. *Adult Education*, Fall 1970, *21*, 14-19.

Gruner, C. R. Ad hominem satire as a persuader: an experiment. *Journalism Quarterly*, Spring 1971, *48*, 128-131.

Guice, B. M. The use of the cloze procedure for improving reading comprehension of college students. *Journal of Reading Behavior*, Summer 1969, *1*, 81-92.

Guthrie, J. T. Feedback and sentence learning. *Journal of Verbal Behavior*, Feb. 1971, *10*, 23-28.

Hakes, D. T., & Foss, D. J. Decision processes during sentence comprehension: effects of surface structure reconsidered. Perception and Psychophysics, Dec. 1970, *8*, 413-416.

Hamilton, H. W. & Deese, J. Comprehensibility and subject-verb relations in complex sentences. *Journal of Verbal Learning and Verbal Behavior*, Apr. 1971, *10*, 163-170.

Hansom, G. R., &Taylor, R. G. Interaction of ability and personality: another look att he dropout problem in an institute of technology. *Journal of Counseling Psychology*, Nov. 1970, *17*, 540-545.

Hardyck, C. D., & Petrinovich, L. F. Subvocal speech and comprehension level as a function of the difficulty level of reading material. *Journal of Verbal Learning and Verbal Behavior*, Dec. 1970, *9*, 647-652.

Hiett, R., et al. A study of the effectiveness of gun control advertising. *Journalism Quarterly*, Autumn 1969, *46*, 542-544.

Holmes, L. B. A comparative study of the academic performance of two groups of entering college freshmen. (Doctoral dissertation, North Texas State University, 1970.) *Dissertation Abstracts International*, Apr. 1971, *31*, 5232A-5233A. Ann Arbor: University Microfilms, Order No. 71-8677.

Howe, M. J. A. Using students' notes to examine the role of the individual learner in acquiring meaningful subject matter. *Journal of Educational Research*, Oct. 1970, *64*, 61-63.

Hultgren, D. D. The role of the individual learning center in effecting educational change. In Schick and May (1970b, 89-94).

Hultgren, D., & Crewe, J. Time as a factor in the retention of college text material. *Journal of Reading Behavior*, Fall 1969, *1*, 49-52.

Ilika, J. The extent of teacher preparation and the development of word analysis knowledge among teacher education students. *Journal of the Reading Specialist*, Mar. 1971, *10*, 124-127.

Ilika, J. The third annual report of the phonetic skills of teachers. In Schick and May (1970b, 95-105).

Jamieson, B. D. Attitude, plausibility, and the learning and recall of controversial material. *Journal of Psychology*, Nov. 1970, *76*, 169-174.

Johnson, D. C. The effect of reading and punctuation variations upon reading comprehension. In Greene (1971, 304-311).

Johnson, J. C., II, Jacobson, M. D., & Beaber, J. D. An analysis of reading proficiency and its improvement in university-accepted rural secondary students. In Schick and May (1970a, 193-197).

Kanungo, R. N., & Dutta, S. Measure of communicative meaning of words: the semantic concensus index. *Psychological Reports*, Aug. 1971, *219*, 295-306.

Kaplan, I. T., & Cawellas, T. Effect of context on verbal recall. *Journal of Verbal Learning and Verbal Behavior*, Apr. 1971, *10*, 207-212.

Kassarjian, H. H. The Negro and American advertising, 1946-1965. *Journal of Marketing Research*, 1969, *6*, 29-39.

Keenen, C. B. Comparative achievement of two substandard groups of university freshmen. *Journal of Educational Research*, Jan. 1971, *64*, 203-204.

Kerstiens, G. Open enrollment: challenge to the reading/study skills program. In Schick and May (1970b, 106-112).

Kline, F. G. Media time budgeting as a function of demographics and life style. *Journalism Quarterly*, Summer 1971, *48*, 211-221.

Knight, D., & Alcorn, J. D. Comparison of the performance of educationally disadvantaged adults and elementary children on selected measures of reading performance. In Schick and May (1970b, 113-117).

Lawrence, D. H. Temporal numerosity estimates for word lists. *Perception and Psychophysics*, Aug. 1971, *10*, 75-78. (a)

Lawrence, D. H. Two studies of visual search for word targets with controlled rates of presentation. *Perception and Psychophysics*, Aug. 1971, *10*, 85-89. (b)

Leslie, R., & Calfee, R. C. Visual search through word lists as a function of grade level, reading ability, and target repetition. *Perception and Psychophysics*, Sept. 1971, *10*, 169-171.

Little, S. W. What is black and white and the tenth largest industry in the country? *Saturday Review*, Feb. 13, 1971, *54*, 54-55.

Locke, J. L. Phonemic processing in silent reading. *Perceptual and Motor Skills*, June 1971, *32*, 905-906.

Loewenthal, K. A study of imperfectly acquired vocabulary. *British Journal of Psychology*, May 1971, *62*, 225-233.

Lowe, A. J., & Stefurak, D. W. The college reading improvement programs of Georgia: 1969-70. In Schick and May (1970b, 118-124).

Lynch, M. D. An index of syntactic dispersion. In Schick and May (1970a, 213-220).

MacGregor, N. The effect of the location of questions in reading material on long-term retention of specific facts by adult subjects. (Doctoral dissertation, Indiana University, 1970.) *Dissertation Abstracts International*, April 1971, *31*, 5110A. Ann Arbor: University Microfilms, Order No. 71-6874.

Mallory, V. C. Effectiveness of practice in extracting and processing information under supervised or non-supervised reading instruction. (Doctoral dissertation, University of Alabama, 1970.) *Dissertation Abstracts International*, Nov. 1970, *31*, 2188A. Ann Arbor: University Microfilms, Order No. 71-17, 942.

Martinez, A. J. Analysis of the present status of the teaching of English as a second language to Puerto Rican adults in New York City. (Doctoral dissertation, New York University, 1970.) *Dissertation Abstracts International*, May 1971, *31*, 5749. Ann Arbor: University Microfilms, Order No. 71-13, 619.

Maxwell, M. J. Effects of practice and learning strategies on speed of scanning for phrases in meaningful material. In Schick and May (1970a, 226-232).

May, R. B., & Tryk, H. E. Word sequence, word frequency, and free recall. *Canadian Journal of Psychology*, Oct. 1970, *24*, 299-304.

McClaskey, H. C. Bibliotherapy with emotionally disturbed patients: an experimental study. (Doctoral dissertation, University of Washington, 1970.) *Dissertation*

Abstracts International, Apr. 1971, *31*, 5205A-5206A. Ann Arbor: University Microfilms, Order No. 71-8523.

McClellan, D. A. Reading ability of junior college students and readability of assigned texts. In Greene (1971, 348-354).

McCroskey, J. C., & Wright, D. W. A comparison of the effects of punishment-oriented and reward-oriented messages in persuasive communication. *Journal of Communication*, Mar. 1971, *12*, 82-93.

McDaniel, J. W. Neighborhood youth corps goes to community college. *Junior College Journal*, Apr. 1971, *41*, 14-17.

McEwen, W. J., & Greenberg, B. S. The effects of message intensity on receiver evaluations of source, message, and topic. *Journal of Communication*, Dec. 1970, *20*, 340-350.

McLeod, J., & Anderson, J. An approach to assessment of reading ability through information transmission. *Journal of Reading Behavior*, Spring 1970, *2*, 116-143.

Meehan, Sr. M. T. The effects of instruction based on elements of critical reading upon the questioning patterns of preservice teachers. (Doctoral dissertation, Indiana University, 1970.) *Dissertation Abstracts International*, Jan. 1971,*31*, 3176A. Ann Arbors: University Microfilms, Order No. 70-26, 940.

Meyer, T. P., & Miller, W. C. Emphasis and non-emphasis radio newscast delivery. *Journalism Quarterly*, Spring 1970, *47*, 144-147.

Mickleson, N. I. Meaningful indices for 120 mass and count nouns for children aged 14 years and for university students. *Journal of Educational Research*, Sept. 1971, *65*, 27-30.

Miller, T. K. Artenen, W. W., & Duncan, J. A. High-risk students in junior college: a special program. *Personnel and Guidance Journal*, Mar. 1971, *47*, 537-543.

Mueller, T. H. Immediate audio and visual confirmation: "breakthrough" for the low-aptitude language student. *Audio-Visual Communication Review*, Winter, 1969, *17*, 464-465.

Mujahid, S. al Coverage of Pakistan in three U. S. newsmagazines. *Journalism Quarterly*, Spring 1970, *47*, 126-130.

Mustico, T. W. Some implications from paired associate learning on the development of reading readiness. In Greene (1971, 283-291).

Newman, H. How to prevent an open door from becoming a revolving one: in-service training in reading and study skills for city university faculty. *Journal of the Reading Specialist*, May 1971, *10*, 234-245.

Newsome, R. S., & Gaite, J. H. Prose learning: effects of pretesting and reduction of passage length. *Psychological Reports*, Feb. 1971, *28*, 123-129.

Opison, S. H. Student appraisal of a preregistration college counseling program. *Journal of College Student Personnel*, Jan. 1970, *10*, 47-51.

Otto, W., & Dulin, K. L. How to succeed in reading by really trying. In Schick and May (1970b, 134-141).

Pace, R. A. The role of auditory-visual equivalences and the applicability of automated programmed learning procedure in teaching severely retarded adults to read. Doctoral dissertation, University of Wisconsin) *Dissertation Abstracts International*, June 1971, *31*, 7607B. Ann Arbor: University Microfilms, 1971. Order No. 71-9346.

Paivio, A. Imagery and deep structure in the recall of English nominalizations. *Journal of Verbal Learning and Verbal Behavior*, Feb. 1971, *10*, 1-12.

Paivio, A., & O'Neill, B. J. Visual recognition thresholds and dimension of word meaning. *Perception and Psychophysics*, Nov. 1970, *8*, 273-275.

Palmatier, R. A. The last 2 r's: a research view. In Wark (1971, 120-130).

Parent, P. P. Toward the nucleation stage: an investigation of the effectiveness of three methods of teaching reading comprehension in a college course in intermediate French. (Doctoral dissertation, Pennsylvania State University, 1969.) *Dissertation Abstracts International*, Aug. 1970, *31*, 683A. Ann Arbor: University Microfilms, Order No. 70-13, 820.

Payne, D. B. The effect of participation in a college reading improvement program on retention of reading skills and academic achievement. (Doctoral dissertation, Northwestern State University of Louisiana, 1971.) *Dissertation Abstracts International*, June 1971, *31*, 6286A-6287A. Ann Arbor: University Microfilms, Order No. 71-16, 257.

Pearson, D. T. The effects of a combined reading and group counseling program on community college students. (Doctoral dissertation, University of Montana, 1970.) *Dissertation Abstracts International*, Dec. 1970, *31*, 2690A. Ann Arbor: University Microfilms, Order No. 70-24, 131.

Pepper, R. S. The study skills and academic achievement of marginal admission students. In Schick and May (1970a, 248-253).

Pepper, R. S., & Drexler, J. A., Jr. Attitudinal factors among marginal admission students. In Wark (1971, 62-88).

Phi Delta Kappan. Functional illiteracy reported high. *Phi Delta Kappan*, Dec. 1970, *52*, 253.

Phillips, G. O., Sr. The relative effectiveness of three instructional approaches upon the reading, study habits and attitudes, and academic performances of disadvantaged black college freshmen. (Doctoral dissertation, University of Pennsylvania, 1969.) *Dissertation Abstracts International*, Sept. 1970, *31*, 1084A. Ann Arbor: University Microfilms, Order No. 70-15, 460.

Phillips, G. O., Sr. Study habits and attitudes of disadvantaged students in a college reading and study skills program. In Schick and May (1970b, 152-157).

Railsback, L. L. A V.I.T.A.L.I.T.Y. center: supplementary reading materials and services. In Schick and May (1970b, 158-161).

Rankin, E. F., & Hess, A. K. The measurement of internal (intra-article) reading flexibility. In Schick and May (1970a, 254-262).

Rentel, V. M., & Kennedy, J. J. Word length and form class factors in a sample of continuous prose. In Schick and May (1970a, 263-269).

Reynolds, R. J., & Lundrum, W. Step-wise analysis of word association data. In Schick and May (1970a, 270-276).

Reynolds, R. J., Palmatier, R. A., & Ulmer, C. Effect of mode of input on ideational fluency in adult training groups. *Journal of Reading Behavior*, Spring 1969, *1*, 53-64.

Rogers, R. Education and political involvement in USSR elite newspaper reading. *Journalism Quarterly*, Winter 1970, *47*, 735-745.

Ross, L. Forecasting the academic achievement of engineering freshmen. *Journal of Educational Research*, Mar. 1971, *64*, 307-310.

Rossiter, C. M., Jr. Chronological age and listening of adult students. *Adult Education*, Fall 1970, *21*, 40-43.

Rossiter, C. M., Jr. Rate of presentation effects on recall of facts and of ideas and on generation of inferences. *AV Communication Review*, Fall 1971, *19*, 313-324.

Sachsman, D. B. A test of "loading": new measure of bias. *Journalism Quarterly*, Winter 1970, *47*, 759-762.

Sainty, G. E. Predicting drop-outs in adult education courses. *Adult Education*, Summer 1971, *21*, 229-233.

Samuels, S. J., & Chen, C. C. Comparison of word recognition strategies of adults and children. In Greene (1971, 73-77).

Santiago, R. L. A contrastive analysis of some rhetorical aspects in the writing in Spanish and English of Spanish-speaking college students in Puerto Rico. (Doctoral dissertation, Columbia University, 1970.) *Dissertation Abstracts International*, June 1971, *31*, 6368A-6369A. Ann Arbor: University Microfilms, Order No. 71-14, 334.

Schick, G. B., & May, M. M. (Eds.), *Reading: process and pedagogy*. National Reading Conference 19th Yearbook. (Vol. I) Milwaukee: the Conference, 1970. (a)

Schick, G. B., & May, M. M. (Eds.), *Reading: process and pedagogy*. National Reading Conference 19th Yearbook. (Vol. II) Milwaukee: the Conference, 1970. (b)

Schneider, V. L. A study of the effectiveness of emphasizing the teaching of reading skills to improve composition skills in remedial English classes at Kansas City Community Junior College. (Doctoral dissertation, University of Kansas, 1970.) *Dissertation Abstracts International*, June 1971, *31*, 6369A-6370A. Ann Arbor: University Microfilms, Order No. 71-13, 359.

Singer, C. R. Eye movements, reading comprehension and vocabulary as effected by varying visual and auditory meodalities in college students. (Doctoral dissertation, New Mexico State University, 1970.) *Dissertation Abstracts International*, July 1970, *31*, 164A. Ann Arbor: University Microfilms, Order No. 70-11, 514.

Smith, J. L: Student perceptions of a reading and study skills center. (Doctoral dissertation, Indiana University, 1969.) *Dissertation Abstracts International,* July 1970, *31,* 181A. Ann Arbor: University Microfilms, Order No. 70-12, 953.

Smith, J. M., & McCombs, M. E. The graphics of prose. *Journalism Quarterly,* Spring 1971, *48,* 134-136.

Smith, K. V., Schremser, R. & Putz, V. Binocular coordination in reading. *Journal of Applied Psychology,* June 1971, *55,* 251-258.

Smith, R. J., Hesse, K., & Otto, W. Factors influencing junior high school teacher's attitudes toward teaching reading in the content areas. In Schick and May (1970b, 177-184).

Smith, W. A. A study of the personality assessment system and its utility in the prediction of performance in a reading improvement course. (Doctoral dissertation, University of Missouri–Columbia, 1970.) *Dissertation Abstracts International,* Apr. 1971, *31,* 5216A. Ann Arbor: University Microfilms, Order No. 71-8391.

Sommer, R. Study conditions in student residences. *Journal of College Student Personnel,* July 1969, *10,* 270-274.

Spector, N. J. The impact of the editorial page on a municipal referendum. *Journal Quarterly,* Winter 1970, *47,* 762-766.

Stempel, G. H., III. Visibility of blacks in news and news-picture magazines. *Journalism Quarterly,* Summer 1971, *48,* 337-339.

Stewart, E. W. Reading improvement program for college students. In Schick and May (1970b, 202-207).

Sticht, T. G. Failure to increase learning using the time saved by the time compression of speech. *Journal of Educational Psychology,* Feb. 1971, *62,* 55-59.

Stieglitz, F. B. The effect of sentence length and grammatical structure on repeatability of sentences by native and foreign speakers of English. (Doctoral dissertation, Columbia University, 1970.) *Dissertation Abstracts International,* June 1971, *31,* 6417A. Ann Arbor: University Microfilms, Order No. 71-14,336.

Swift, P. Keeping up . . . with youth. *Parade,* Aug. 1, 1971, *10.*

Taschow, H. G. Reading gains measured by two different methods. *Saskatchewan Journal of Educational Research and Development,* Spring 1971, *1,* 38-44.

Tichenor, P. J., Olien, C. N., Harrison, A., & Donohue, G. Mass communciation systems and communication accuracy in science news reporting. *Journalism Quarterly,* Winter 1970, *47,* 673-683.

Tobias, S., & Abramson, T. Interaction among anxiety, stress, response mode and familiarity of subject matter on achievement from programmed instruction. *Journal of Educational Psychology,* Aug. 1971, *62,* 357-364.

Todd, W. B., & Kessler, C. C., III. Influence of response mode, sex, reading ability, and level of difficulty on four measures of recall of meaningful written material. *Journal of Educational Psychology,* June 1971, *62,* 229-234.

Tuinman, J., & Hafner, L. E. Information value of adjectives in relation to their position in sentences. *Psychological Reports,* June 1971, *28,* 987-990.

Vraa, C. W. Predicting academic achievement of Canadian college freshmen. *Journal of College Student Personnel,* July 1971, *12,* 303-308.

Wali, A. J. T. Adult education in Iraq: a comparative study of the verbal method and audio-visual techniques int he learning process. (Doctoral dissertation, University of California, Los Angeles, 1970.) *Dissertation Abstracts International,* Sept. 1970, *31,* 1001A. Ann Arbor: University Microfilms, Order No. 70-16, 339.

Wark, D. M. (Ed.), *College and adult reading.* North Central Reading Association 6th Yearbook. St. Paul: the Association, 1971.

Wark, D. M. Test panic, daydreaming, and procrastination. In Wark (1971, 131-151).

Warren, R. M., & Obusek, C. J. Speech perception and phonemic restorations. *Perception and Psychophysics,* Mar. 1971, *9,* 359-362.

Warsh, H. E. Behavior modification of adult illiterates and functional illiterates who elarned to read. (Doctoral dissertation, Wayne State University, 1969.) *Dissertation Abstracts International,* Sept. 1970, *31,* 1002A. Ann Arbor: University Microfilms, Order No. 70-16, 527.

Watts, M. W., Jr. Differences in educational level and subject students. *Adult Education,* Winter 1971, *21,* 27-36.

Weaver, W. W., Holmes C. C., & Reynolds, R. J. The effect of reading variation and punctuation condition upon reading comprehension. *Journal of Reading Behavior,* Winter 1970, *2,* 75-84.

Weaver, W. W., Kingston, A. J. Bickley, A. C., & White, W. F. Information flow difficulty in relation to reading comprehension. *Journal of Reading Behavior*, Summer 1969, *1*, 41-49.

Weigel, R. G. Laterality, mirror-writing and mirror-reading. *Perceptual and Motor Skills*, June 1971, *32*, 969-970.

Weigel, R. G., Weigel, V. M., & Herbert, J. A. Non-volunteer subjects: temporal effects. *Psychological Reports*, Feb. 1971, *28*, 191-192.

Whitehill, R. P., & Rubin, S. J. Effectiveness of instrumental and traditional methods of college reading instruction. *Journal of Experimental Education*, Spring 1971, *39*, 85-88.

Williams, R. L. On quantifying and measuring the reading backgrounds of students just entering college. (Doctoral dissertation, University of Pittsburg, 1969.) *Dissertation Abstracts International*, Sept. 1970, *31*, 1156A. Ann Arbor: University Microfilms, Order No. 70-13, 791.

Williams, R. P. Predicting comprehension gains of college freshmen. *Journal of Reading Behavior*, Spring 1970, *2*, 166-172.

Yang, S. A readability formula for Chinese language. (Doctoral dissertation, University of Wisconsin, 1971.) *Dissertation Abstracts International*, June 1971, *31*, 6536A. Ann Arbor: University Microfilms, Order No. 71-12, 723.

Yarington, D. J. A review of the research literature dealing with high school and college students' time spent reading and studying. *Journal of the Reading Specialist*, Dec. 1970, *10*, 96-107.

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